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ABSTRACT

The purpose of this publication on agency training evaluation practices is to share approaches used by federal agencies to assess needs and measure training effectiveness. Emphasis is placed on the process of evaluation. Names of the agencies and highlights of the examples used by each follow: (1) Plant Protection and Quarantine (Department of Agriculutre, Animal and Plant Health Inspection Service) adapted a method known as Training Impact Auditing, in which supervisors learned to assess the changed behavior of newly trained officers; (2) the Forest Service's Region 5 (Department of Agriculture) used a questionnaire to measure perceived level of behavior of trainees; (3) the National Aeronautics and Space Administration evaluated career seminars for employees using employee self-assessments, end-of-course action planning, post-course group discussions, and individual follow-up; (4) the Department of the Navy's Finance Center developed a method to evaluate a course on employee/supervisory interactions; (5) the Office of Personnel Management developed a generic method of assessing behavioral change; and (6) the Bureau of Government Financial Operations (Department of the Treasury) carried out a year-long assessment of new courses, collecting data on reaction, learning, and transfer of skills to the job. (LC)

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EVALUATING THE IMPACT OF TRAINING

A Collection of Federal Agency Evaluation Practices

VOLUME 2

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INTRODUCTION

This publication is the second collection of agency training evaluation practices produced by the Office of Training, U.S. Office of Personnel Management.* As with the first, the purpose is to share approaches used by Federal agencies to assess needs and measure training effectiveness. In all cases, the evaluations address the impact of training on job behavior.

We see the publication as being useful in these ways:

- To provide ideas to readers on how different types of programs can be assessed using various evaluation techniques.
- To offer enough information to readers so that they can make decisions about the appropriateness of an approach for their own setting, and can adapt examples of instruments and design features for their own needs.
- To provide agency contacts who are willing to share their experiences with others, and thus to expand the practice of resource sharing and information exchange.

*The first is, "Evaluating the Impact of Training: A Collection of Federal Agency Evaluation Practices," R. Salinger and J. Bartlett, Spring 1983. Available from NTIS, 5285 Port Royal Road, Springfield, VA 22161. Accession No.: PB83-261149; Cost: $17.50 (paper), $4.50 (microfiche).

Some of the examples describe an evaluation approach and instruments tailored to a specific course. Others describe a generic methodology which agencies have applied to one or more of their courses. Overall the emphasis in the descriptions is on the process of the evaluations, not the results. Readers are encouraged to use whatever features of the processes they can adapt to their own setting and needs.

Each description begins with a summary, followed by the steps of the process and an analysis of the effort, including resources needed, advantages, and limitations. An agency contact is provided at the end. Attachments to each description contain samples of data collection procedures and instruments. Below are highlights of each example.

Plant Protection and Quarantine (part of the Department of Agriculture's Animal and Plant Health Inspection Service) adapted a method known as Training Impact Auditing, in which supervisors learn how to assess the changed behavior of their newly trained officers, using different data collection techniques. Features of the evaluation include training the supervisors as evaluators; using a data collection questionnaire (filled out by supervisors and officers) based on the sub-tasks of the job; and analyzing both positive and negative results of training.

For a course on supervisory interactions with employees, Forest Service's Region 5 (part of the Department of Agriculture) used a contractor-developed questionnaire given pre- and post-training, to measure perceived level of behavior of the trainees (Forest Service supervisors). Three levels of individuals completed the questionnaire - participants, employees, and managers - as well as a control group who had not yet been trained.

National Aeronautics and Space Administration headquarters offered career seminars for employees who wanted to assess their career goals and plan for desired changes. Evaluation efforts occurred from the beginning of the sessions, with employee self-assessments, and continued through end-of-course action planning, post-course group discussions, and individual follow-up.

Department of the Navy's Finance Center, in conjunction with their contractor, developed a method to evaluate a course for supervisors on employee/supervisory interactions. Features of the evaluation include using an advisory board; having three groups provide their perceptions of behaviors - employees, supervisors, and managers - as well as a control group; and using a group setting for questionnaire completion.

The U.S. Office of Personnel Management developed a generic method for assessing behavioral change, particularly for courses with hard-to-measure objectives. After the description of the method and some variations on the theme, two agency applications are cited - OPM's San Francisco Region and the Economic Development Institute of The World Bank.

The Bureau of Government Financial Operations (part of the Department of the Treasury) carried out a year-long assessment of new courses, collecting data on reaction, learning, and transfer of skills to the job. The last was measured using a questionnaire mailed to supervisors and employees. At the end of the year trend data across courses were analyzed as well as data on individual courses.

In addition to the evaluation descriptions, four appendices are provided as references. Appendix A contains summaries from the first volume of agency evaluation practices. Appendix B is a selected bibliography. Appendix C is a list of U.S. Office of Personnel Management contacts, including regional offices, that can provide additional information on needs assessment and evaluation. Appendix D describes OPM publications related to evaluation which can be purchased from the National Technical Information Service.

Readers are encouraged to share their experiences in these areas with OPM, which will in turn share useful information with others.

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Department of Agriculture, APHIS, Plant Protection and Quarantine: William Wade

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National Aeronautics and Space Administration: Joanne Pichaske

Department of the Navy, Finance Center: Marge Futoran

U.S. Office of Personnel Management, San Francisco Region: Sharon Levy

Department of the Treasury, Bureau of Government Financial Operations: Sandra Lusk

The World Bank: Robert Youker

U.S. DEPARTMENT OF AGRICULTURE

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

PLANT PROTECTION AND QUARANTINE

EVALUATION OF NEW OFFICER TRAINING

SUMMARY

The Department of Agriculture evaluated technical training for new officers in Plant Protection and Quarantine in order to see what impact the training had on job performance. The evaluation mainly focused on the behavioral changes that were observed after the new officers finished training. This method, known as Training Impact Auditing, involves the use of "key clients" (supervisors of the trainees), who assess the performance of new officers by using four data-gathering methods: assessment questionnaires, interviews, performance observations, and miscellaneous inquiries. A primary effort of this evaluation involves teaching the key clients the various data-gathering methods and orienting them to the evaluation process. Therefore, the first half of the evaluation process deals mainly with the training of the evaluators. The second half focuses on the evaluators' collecting data regarding the performance of new officers after training, and analyzing the data in order to reach conclusions about the training's effectiveness. Results of the evaluation were used to improve new officer training and to improve the officers' job performance.

GENERAL DESCRIPTION OF THE EVALUATION METHOD

Within the Department of Agriculture is the Animal and Plant Health Inspection Service. One major division is Plant Protection and Quarantine (PPQ), which carried out the training activities and evaluation described below. The Training Impact Auditing (TIA) evaluation method was used in order to measure on-the-job performance of employees. This process was developed by Mr. Linn Coffman of Development Dimensions International in Pittsburg, Pennsylvania. After studying Mr. Coffman's test results, the Professional Development Center (PDC), the training arm of Plant Protection and Quarantine, decided to use some of the basic principles of TIA in order to complete the assessment model. Some modification was necessary in order to meet the PDC's needs and to adapt Training Impact Auditing to PPQ's operation and structure.

Plant Protection and Quarantine's main responsibilities involve regulating the entry of plants, plant products, and animal products into the U.S. from other countries and checking them for diseases and insects at different ports of entry. The majority of new PPQ officers are hired as college graduates; however, some transfer from other agencies, outside the Department of Agriculture. Their educational backgrounds consist of college degrees in the biological sciences. The New Officer Training Program is conducted in a classroom for 9 weeks. During the first 4-1/2 weeks, the new officers learn the various laws and quarantines; during the last 4-1/2 weeks, they learn pest identification. However, during the 1980-1981 period when a

large number of individuals were hired, many of the new officers did not have time to receive the training at the time they began work, and learned some of the necessary skills on the job.

In order to obtain top management support for an evaluation of the New Officer Training Program, the Professional Development Center consulted the Deputy Administrator of PPQ. Because of his interest in the evaluation, he sent memoranda out to all duty stations requesting their participation.

The evaluator used the following basic steps in the assessment model. Further discussion of these steps will follow.

1. Identify selected duty stations within a 250 to 500 mile radius of the PDC that were recipients of new officers.
2. Identify key clients (supervisors who would be trained as evaluators) at above duty stations.
3. Select key clients and request their participation in the assessment session.
4. At the first session, request that key clients gather data relevant to program results. Train key clients in data-gathering methods.
5. The key clients return to their respective duty stations and collect the data by using the four data-gathering techniques.
6. At the second session, have subgroups of key clients make prioritized lists of positive (achieved) results of the training and a prioritized list of negative (unachieved) results of the training. In a general discussion, have each subgroup report its results.

7. Consolidate lists and discuss findings with training staff at follow-up meeting.

Major Steps

Identification of duty stations - The duty stations which were chosen for the evaluation were to be only 250-500 miles from PDC and had to be recipients of new officers. These stations were chosen so as not to incur extensive travel costs and to ensure that the locations contained employees who potentially had received training.

Selection of key clients - Based upon new officer distribution and duty station size, a predetermined number of key clients were identified to participate in conducting the assessment. The key clients selected were usually the first line supervisors of the new officers. They were considered "key clients" because they are ultimately responsible for evaluating the impact of the training on job performance, and are in the best position to observe and gather data on how training has impacted work unit performance.

The key clients were to evaluate ten new officers each, officers who were not necessarily from the same physical work unit within the duty station as the key clients. If the officers were not in the same station the key client rotated in order to observe the new officers. In some cases the key clients had too many new officers to evaluate and were pressed for time to collect all the data.

The Professional Development Center sent letters to the supervisors (now the key clients), informing them of the upcoming evaluation effort, providing them a list of objectives concerning the training sessions on the evaluation process, and giving them the complete set of guidelines to be used in data-gathering. Session 1, the initial training effort for the key clients, is described below; an explanation of Session 2, the follow-up meeting after data was collected, follows.

Session 1 - Based upon the objectives, PDC developed a list of topics which served as the foundation for the discussion. Some of the topics were:

- Why is training impact assessment important?
- Why do you think you were you selected to participate in the assessment trial?

Besides discussing these topics, the key clients learned the four data-gathering techniques and were given guidelines to follow. Otherwise, the key clients were instructed to contact the PDC if they had any problems. See the section (below) "Data-Gathering Methods," for descriptions of the four techniques used.

The key clients also discussed possible barriers which they may encounter upon returning to their work locations. The main concerns of the key clients were the following: a) obtaining support and cooperation from local management; b) having adequate time to gather the necessary data relative to other duties; and c) having personnel available to backfill positions left temporarily vacant when key

clients and officers were away from their assigned duties while gathering the data.

In addition, the key clients understood that the performance data gathered on individual officers would be used collectively to assess the impact that training had on job performance, and would not be used for any other purpose. The key clients were instructed to discuss the concept of impact assessment with the officers and to distribute a written summary sheet of the assessment effort to them. (See Attachment 1.)

At the end of the session, a critique was given to the key clients in order to obtain feedback concerning the effectiveness of Session 1. The questions primarily addressed the organization of the materials and the overall instructions that were given to the key clients during Session 1. The time frame allotted for Session 1 was 12 hours (one and a half days).

Data-gathering - During the next five months, the key clients, now at their duty stations, gathered the necessary data relative to each of the four data-gathering techniques. If the key clients had any questions, they could contact the PDC at any time.

Session 2 - Session 2 started five months after completion of Session 1, and similar to Session 1, the PDC developed a list of objectives, which were distributed to all key clients. The major objectives of Session 2 were to have subgroups of key clients:

1. Generate prioritized lists of positive (achieved) and negative (unachieved) results of the training, based upon the data gathered.
2. Review the list of negative (unachieved) results for the purpose of noting factors and/or causes for the most critical negative training results.
3. Report their findings in a general session.

Based on these objectives, the PDC developed a list of topics to use as a framework for conducting Session 2. Two examples are the following:

- What were the barriers you encountered while gathering the assessment data?
- What were the major strengths and weaknesses of the data-gathering methods you used?

The key clients worked in subgroups, compiling lists of achieved and unachieved results of the training. Then they discussed the findings in a large group, led by a PDC Section Leader. As in Session 1, the key clients filled out a critique concerning the overall organization of the assessment trial and the validity of the data gathered. The time programmed for conducting Session 2 was 16 hours (two days).

Consolidation of data and follow-up - The PDC Section Leader responsible for the evaluation consolidated the results of Session 2 and forwarded the results to the key clients for comment. The Section

Leader prioritized the positive (achieved) results from most valuable to least valuable, and the negative (unachieved) results from most critical to least critical. After key clients made their comments on the consolidated results, a post-session meeting was held with PDC staff associated with the training and the evaluation. The lists of findings were provided to the group and they were briefed on the evaluation. They were asked to record their reactions to the results and to provide suggestions for actions which could be taken to address the results. The group reconvened at a later time to discuss their reactions and to decide what steps should be taken. The PDC sent a letter to all key clients letting them know the outcome of these final meetings.

Data-Gathering Methods

In order to understand the data-gathering process, a description of each of the four methods will be discussed. It is important to remember that the key clients were required to use only two of the four methods, namely the assessment questionnaires and the interviews. The other two methods, the performance observations and the miscellaneous inquiries, were for optional use. The major means by which the Section Leader was able to verify the information gathered by the key clients was through an analysis of the data generated by the assessment questionnaires. Of the two optional methods, the performance observation was used the most. Even though the key clients had guidelines for each of these methods, they were able to contact the PDC any time if they had questions or problems.

Assessment questionnaires - The assessment questionnaire served two major purposes. It provided: a) an overall level of performance for the individual tasks and subtasks carried out by officers; and b) a validation process relative to officer performance, which could be correlated with the positive (achieved) and negative (unachieved) results of the training, generated by the key clients during Session 2. The questionnaire consisted of the major tasks (15 total) and subtasks (163 total) performed by officers. It did reflect the current program content and basic course objectives for new officer training; however, all areas of performance were not covered. The key clients and officers each completed the same questionnaire. They also discussed the administrative aspects of the questionnaire with each other, to alleviate any fears that performance data would be used for yearly personnel evaluations.

For each subtask listed on the questionnaire, a scale was provided, by which the key clients and officers could indicate the officers' level of performance (1-10) for the subtask in question. This was done by placing an "X" along the scale which indicated the rating. An example of a major task, subtask, and the rating scale follows.

INSPECTION OF CARRIERS (TASK)

Inspecting galley areas and quarters for plant and animal contraband

(Subtask)

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10

Less than Proficient More than Proficient

The following standards were used which centered around the officer's ability to perform the various subtasks correctly with varying degrees of guidance or supervision:

0-1 = officer is totally incapable of performing the subtask.

2-3 = officer can perform the subtask correctly with supervision.

4-5 = officer can perform the subtask correctly with only occasional supervision; however, without supervision, the subtask may be performed incorrectly.

6-8 = officer can perform the subtask at a proficient level, i.e., correctly and without supervision.

9-10 = officer is a "master performer," i.e., can perform the subtask correctly with a high degree of confidence, no supervision, and can train others to perform the same subtask.

Also for each task and subtask, a set of "not applicable" statements was provided, as follows:

(N/A) ___ Subtask not performed at this location

___ Subtask performed infrequently

___ Training not yet received for this subtask

___ Other (explain)

Collection of data - So as to maintain anonymity of the officers during the assessment trial, a code was assigned to each officer. The codes were assigned according to work location and the number of officers who were participating in the assessment at each location. The coded questionnaires were returned to the PDC as the key clients and officers completed them. The PDC tabulated the data from the questionnaires in order to compare the ratings of the new officers by the key clients and the new officer self ratings. Based upon this information, the overall level of performance for each category of officers was established and was represented in a statistical summary. (Note: Results were originally tabulated manually; now they are computer-analyzed.)

Summary of statistical results - Before the assessment trial began, a hypothesis was proposed concerning the performance of each category of officers. The hypothesis stated that: The longer an officer has been on the job, and therefore the longer that an officer has had to apply the skills learned in new officer training, then the higher the overall level of performance. The reverse should also be true, i.e., the less time on the job, then the lower the overall level of performance. Based upon the hypothesis, the officers were assigned to categories which reflected the time at which they had been hired and when they had attended the training. The hypothesis was supported from the statistical summary of the data. (See Attachment 2 for summaries of performance ratings by the officers themselves and by the key clients, along with a combined average. Also shown are the number of tasks for which officers rated themselves higher or lower than the key clients.)

Interviews - Interviewing was used to obtain more qualitative and specific data. No set format was given to the clients; however, the key clients were to study the guidelines presented by the PDC for conducting an interview, if they were unfamiliar with the interviewing process. They also were encouraged to practice interviewing with peers if they needed to. The following questions are examples of the open-ended variety suggested during Session 1 of the training which key clients could uses as a basis for developing their own interviews:

- Give me examples of how you have (or have not) used the skills gained in New Officer Training to perform your duties as an officer.
- What are the positive or negative results you have experienced as a result of the skills gained in New Officer Training?

See Attachment 3 for guidance provided on open-ended questions.

After the interview, the key clients took the data and prioritized them into two lists of positive and negative results. This information was discussed with the other key clients in Session 2, and was validated by the data obtained from the questionnaires.

Performance observations - Since the key clients would have a chance to actually observe the performance of the new officers, the performance observation method would be suitable to use if time permited. This method requires that the key clients have a full knowledge of the officers' performance on the job so that an accurate

assessment of the level of performance for each new officer can be made. Performance observation was seen as an important data-gathering technique, because it was a good way of verifying data which had been gathered either by the questionnaire or interview method or both. The PDC provided guidelines for this method for key clients who were unfamiliar with it.

Miscellaneous inquiries - Miscellaneous inquiries were another way suggested by the PDC for the key clients to obtain information if they had the time. This method was also optional; a few examples of this are:

- Information on officer performance from port records.
- Interviews with other port supervisors for input on the officer's performance.
- Frequency of assistance requested by trainee from supervisor or other in carrying out job tasks.

Overall Results

Regarding the effectiveness of both the assessment trial and the process, the results impacted three major areas: a) the training itself, b) the supervisors, i.e., key clients, and c) the trainees, i.e., new officers. Based upon the information gathered on the training itself, the evaluators were able to identify both the positive and negative results of the training, and the perceived causes for the negative results. Results were used to revise the assessment trial process itself, to identify instructional "gaps" in the training, and to determine other actions needed to improve job

performance (e.g., training in certain areas for experienced officers). Weighing the above results against the original intent of the assessment trial and process, the evaluators concluded that the process was effective as a means of evaluating the impact that training had on job performance.

In terms of the effectiveness of the process as it impacts the trainee's supervisor, i.e., key client, the results reinforced the need to actively involve line personnel in the evaluation of training and also created an atmosphere of "shared ownership" of the training among the key clients. Supervisors felt they had a voice in ensuring good quality training; by improving the training the individuals who worked for their division would be better prepared and more effective in their jobs.

By participating in the training evaluation the new officers themselves were given the opportunity to contribute to the overall improvement of training and ultimately to the organization. The trainees also were able to identify specific skills learned which they could not currently apply on the job and to assess their own level of proficiency.

Conclusion and Final Report

Based on the performance correlations, feedback from key clients, and overall results of the trial, it was concluded that the Training Impact Auditing process and the modified model was a valid means of measuring the impact that training has on performance. The process

was systematic in its approach to training evaluation and also flexible in that it could be adapted to an organization's specific needs, operations, and structure.

Because of the quality of data and the results of the performance analysis, steps were initiated to begin a complete review of new officer training and begin work toward revising certain segments so that quality improvements could be realized. Even though the process met the evaluators' expectations, improvements will be made in the process in order to better meet the needs of the organization. The basic principles of this evaluation will be used by other areas of training once a year. Moreover, this same evaluation or parts of it will be used to evaluate the New Officers Training program every three years.

A report containing all aspects of the evaluation, including the process findings, analysis, and recommendations, was presented to everyone in the PDC and to all of the key clients.

ANALYSIS OF EVALUATION METHOD

Resources required - The greatest resource required for Training Impact Assessment was sufficient time to conduct the evaluation. Because the key clients had to be trained before gathering the data, a day had to be set aside for Session 1. Another day had to be set aside for Session 2, plus the five calendar months of data-gathering that the key clients performed. The key clients either selected a number of days a week or a number of hours a day to evaluate the new officers.

Moreover, the Professional Development Center needed time before the evaluation to develop the modified model and materials for the assessment. About a year's calendar time was required from project initiation to the conduct of the evaluation. In future evaluations this development time will be greatly reduced.

In addition to the time of the individuals, the evaluation required the personal commitment of the first line supervisors who are trained to be key clients. These people had to have a lot of interest in this evaluation because they were the ones who had to put the most time into the evaluation of the new officers.

The other resource needed for the TIA approach was financial. For this agency, using at least ten key clients, the cost of travel was between $7000 and $8000. Plant Protection and Quarantine felt that this evaluation was important enough to do again in the future, and

will build into the training budget the money for the evaluation.

Another important condition for use is to keep all communication channels open between the key clients and the PDC, and the key clients and the new officers. This will not only help everyone to know exactly what to do, but will help in alleviating any organizational problems.

Advantages

- Provides relevant data for evaluating the training process and the impact of training on job performance.
- Actively involves the first line supervisors in the evaluation of training.
- Creates an atmosphere of "shared ownership", i.e., the key clients worked cooperatively toward gathering useful data, so that quality improvements in the training could be made.
- Allows the new officers to contribute to the overall improvements of the training.
- Allows the trainees to assess their own level of proficiency; comparisons can be made between their assessment and that of the supervisors.
- Offers flexibility in terms of meeting the needs of a specific organization.
- If this method is taught to some of the people in the organization, the organization will not need to bring in outside resources for the evaluation.

Limitations

- Needs support and cooperation from local management.
- Key clients need adequate time to gather the necessary data relative to other duties.
- Having personnel available to backfill positions left temporarily vacant when key clients are away from their assigned duties while gathering the data.
- Orienting the key clients to the process and making sure that they understand what they are supposed to evaluate.
- Relatively long calendar time to implement Training Impact Auditing process.
- Costs involved in travel to training sessions, depending on location of key clients relative to training site.

Reference

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ATTACHMENT 1

TRAINING IMPACT ASSESSMENT TRIAL

SUMMARY SHEET FOR OFFICERS

TRAINING IMPACT ASSESSMENT TRIAL

SUMMARY SHEET FOR OFFICERS

For the past several months the Professional Development Center (PDC) has been working on the development of a prototype impact assessment model. Training impact assessment is an evaluation tool designed to gather data about the effects, i.e., impact, that a particular training program has on the job performance of previous trainees. It is an attempt to find out if the training has worked. In fiscal year 1982, the PDC will conduct a trial assessment of New Officer Orientation and Technical Training (NOT), utilizing the prototype model.

As a new PPQ officer, you will be working closely with your supervisor, in providing data to the PDC, on the impact that NOT has had, relative to your performance on the job. Your participation in the assessment trial will consist of a combination of data-gathering methods. Initially you will be asked to complete a questionnaire which was designed to assist you in assessing your performance on the job, relative to the various tasks performed by PPQ officers. The questionnaire in effect, is a self-assessment of your ability to perform these tasks correctly with varying degrees of guidance or supervision.

In addition, at some scheduled time, your supervisor will interview you regarding your participation in NOT. The purpose of the interview is to provide the PDC with: (1) examples of how you have (or have not) used the skills gained in NOT to perform your duties as an officer, (2) what tasks you can now perform on the job which you could not perform prior to attending NOT, (3) what the major strengths and weaknessess of the training were from an officer's viewpoint, (4) what the positive or negative results you have experienced in terms of your on-the-job performance, as a result of the skills gained in NOT, and (5) what suggestions for improvement you have for any phase of the training and how such improvements would help you in performing your duties as an officer.

Some of you who have not attended NOT or will not attend in FY 1982, will also be asked to participant in the assessment trial. The purpose of having you participate is to gather data on an officer's ability to perform the various job-related tasks, without the benefit of having completed NOT. It should be noted that all performance data gathered on individual officers will be used only to assess the impact that NOT has on job performance. All information gathered will be anonymous and strictly confidential.

One final note--the PDC is putting time and energy into impact assessment for only one reason. The reason is that we want to be able to objectively determine the effectiveness of the technical training conducted in PPQ. We want to be able to make intelligent decisions about training programs and the need for their expansion, modification, or elimination. Our goal is effective training. Impact assessment and its conscientious application by our staff, PPQ supervisors and officers will help ensure that goal is realized.

If you have any questions concerning the assessment trial and/or your participation, please contact your supervisor. Further clarification if necessary can be directed to:

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Frederick, Maryland 21701

(301) 663-8585
~~FTS 933-1270~~

ATTACHMENT 2

SUMMARY OF PERFORMANCE DATA

FROM QUESTIONNAIRES

TRAINING IMPACT ASSESSMENT TRIAL

--Summary of Performance Data from Questionnaires--

The following is a statistical summary of the levels of performance for the four categories of officers participating in the assessment trial. Various aspects of performance, such as average key client ratings, rating variances, rankings, etc., are represented by the summary. Standards used in rating the officers have been shown to provide a reference point for statistical comparisons. Following the summary is an excerpt from the questionnaire results which explains major aspects of the ratings. The "green" section which follows, represents the composite results for ratings on tasks only, while the "yellow" section represents the composite results for tasks and subtasks.

- RATING STANDARDS

  0 - 1 = officer is totally incapable of performing the subtask.
  2 - 3 = officer can perform the subtask correctly with supervision.
  4 - 5 = officer can perform the subtask correctly with only occasional supervision; however, without supervision, the subtask may be performed incorrectly.
  6 - 8 = officer can perform the subtask at a proficient level, i.e., correctly and without supervision.
  9 -10 = officer is a "master performer", i.e., can perform the subtask correctly with a high degree of confidence, no supervision, and can train others to perform the same subtask.

- OFFICER CATEGORIES

  Category #1 = Attended NOT I, FY 1981.
  Category #2 = Attended NOT I/II, FY 1982.
  Category #3 = Attended NOT III, FY 1982.
  Category #4 = Did not attend NOT, or did not complete NOT prior to May 5, 1982.

- NUMBER OF OFFICERS

  Category #1 = 6
  Category #2 = 15
  Category #3 = 8
  Category #4 = 9
  Total = 38

- AVERAGE RATING BY KEY CLIENTS FOR ALL TASKS/SUBTASKS

  Category #1 = 5.59
  Category #2 = 4.94
  Category #3 = 4.87
  Category #4 = 3.49

- AVERAGE RATING BY OFFICERS FOR ALL TASKS/SUBTASKS

  Category #1 = 6.31
  Category #2 = 6.35
  Category #3 = 6.21
  Category #4 = 4.38

- OVERALL AVERAGE RATING FOR ALL TASKS/SUBTASKS 1/

  Category #1 = 5.95
  Category #2 = 5.65
  Category #3 = 5.54
  Category #4 = 3.94

1/ Based upon the average of key client/officer ratings.

Summary of Performance Data from Questionnaires (continued)

- AVERAGE RATING VARIANCE (POSITIVE) 2/

  Category #1 = 1.54 (70%)
  Category #2 = 1.78 (84%)
  Category #3 = 1.74 (91%)
  Category #4 = 1.36 (64%)

- AVERAGE RATING VARIANCE (NEGATIVE) 3/

  Category #1 = .90 (28%)
  Category #2 = .84 (15%)
  Category #3 = .48 (8%)
  Category #4 = 1.02 (32%)

- OVERALL AVERAGE RATING VARIANCE 4/

  Category #1 = ± .74
  Category #2 = ± 1.26
  Category #3 = ± 1.53
  Category #4 = ± .58

- PERCENTAGE OF SUBTASKS WHERE VARIANCE WAS SIGNIFICANT 5/

  Category #1 = 15%
  Category #2 = 17%
  Category #3 = 21%
  Category #4 = 11%

- RANKING - LEVEL OF PERFORMANCE 6/

Officer Category:	Percentage of Time Officers Were Ranked: 1	2	3	4
#1	54%	13%	33%	0%
#2	13%	60%	27%	0%
#3	33%	27%	40%	0%
#4	0%	0%	0%	100%

2/ Where officers rated themselves higher (+) than the key clients on specific subtasks, the above figures represent the average degree of positive variance. For example, on 70% of the subtasks, officers rated themselves, on an average, 1.54 points higher than the key clients.

3/ Where officers rated themselves lower (-) than the key clients on specific subtasks, the above figures represent the average degree of negative variance. For example, on 28% of the subtasks, officers rated themselves, on an average, .90 points lower than the key clients.

4/ The above figures represent the overall positive/negative average variance between key client/officer ratings.

5/ A statistical variance of ± 2.50 or more between key client/officer ratings on the various subtasks is considered significant, i.e., the variance is large enough to skew the average ratings for these subtasks, and is considered to be an inaccurate representation of the officers' level of performance. The above figures represent the percentage of subtasks where the variance between the key client/officer ratings was significant.

6/ For all of the tasks/subtasks, the officers were ranked 1-4 based upon the overall average ratings on each, i.e., a ranking of "1" indicates the highest level of performance for a task or subtask, while a ranking of "4" indicates the lowest level of performance for a task or subtask. For example, Category 1 officers were ranked #1 in terms of performance, 54% of the time, #2 in terms of performance, 13% of the time, etc.

ATTACHMENT 3

CHECKLIST FOR OPEN-ENDED QUESTIONS (INTERVIEWS)

Checklist for Open Ended Questions:

If this is your first experience in conducting interviews, you may want to try developing a checklist with anticipated fixed responses. For each open ended question you ask, keep in mind, however, that it is virtually impossible to anticipate all possible responses for any particular question. Also, to maintain the underlying principle of the interview method, i.e., obtaining qualitative data, you should allow space for note taking so that the officer can elaborate on any fixed response he/she might give. The following are examples of open ended questions with a checklist of anticipated fixed responses. Key clients should use these examples as a basis for developing their own interviews if they choose this particular means of doing so.

1. "What aspects of the training have helped you the most in terms of your performance on the job and why?"

____ a. Rules/regulations
Why?--

____ b. Interception techniques
Why?--

____ c. Identification skills
Why?--

____ d. Field trips
Why?--

____ e. Other:
Why?--

2. "What were the major strengths if any of the training and why?"

____ a. Plant pathology
Why?--

____ b. Entomology
Why?--

____ c. Orientation
Why?--

____ d. Rules/regulations
Why?--

____ e. Other:
Why?--

3. "What tasks or subtasks can you now perform on the job which you could not perform prior to attending NOT?"

____ a. Regulating animal products

____ b. Regulating nursery stock

____ c. Conducting phytosanitary inspections

____ d. Identifying plant diseases

____ e. Other:

4. "What aspects of the training have helped you the least in terms of your performance on the job and why?

____ a. Field trips
Why?--

____ b. Orientation to Federal service
Why?--

____ c. Orientation to PPQ domestic programs
Why?--

____ d. Animal Product Training
Why?--

____ e. Other:
Why?--

5. "Give me examples of how you have used the skills gained in NOT to perform your duties as an officer?"

____ a. Increase in number of pest interceptions

____ b. Increase in number of correct pest identifications

____ c. Reduction in time required to make regulatory decisions.

____ d. Increased ability to work independently without supervision.

____ e. Other:

U.S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE REGION 5

EVALUATION OF SUPERVISORY SKILLS TRAINING PROGRAM

SUMMARY

Supervisors at four National Forests in Region 5 of the Forest Service, U.S. Department of Agriculture, participated in twelve modules of behavior modeling supervisory skills training. The course content emphasizes the one-on-one skills of managing interactions with subordinates and managers. Measurement of training effectiveness was determined by administration of pre-training and post-training questionnaires that included questions about specific supervisory behaviors. The questionnaires were administered to the participants, their subordinates, and the participants' supervisors. As a result of the evaluation, the Region decided to brief other Region 5 Forests on the results and recommend the use of the behavior modeling approach for the teaching of supervision.

GENERAL DESCRIPTION OF THE EVALUATION METHOD

The mission of the Forest Service is to provide a continuing flow of natural resource goods and services to help meet the needs of the nation and to contribute to the needs of the international community. National Forests are established and administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. There are four organizational levels, namely Chief, Region, Forest, and District. Forests and Districts are geographical entities, with Districts being subdivisons of a Forest. Supervisors include a heavy representation of those who supervise specific field work crews such as firefighting, timber, and marking.

After initial review and evaluation of the concepts, design, and content of behavior modeling training, the Regional Forester decided to pilot test and evaluate this training on four National Forests and in the Regional Office. The purpose of the evaluation was to determine the effectiveness of application of learned classroom skills to the actual job situation.

One hundred and thirty-five supervisors were enrolled in 12 modules of Zenger-Miller's 25-module supervisory training course, SUPERVISION. The course content focuses on frequently occurring supervisory situations where supervisors typically have difficulty. The course emphasizes various types of interactions with subordinates, as well as how to work effectively with the supervisors' own managers. The modules used included: Basic Principles; Setting Job Standards;

Improving Employee Performance; Disciplinary Action; Correcting Problem Behavior; Handling Emotional Behavior; The Performance Appraisal Interview; Listening with Understanding; Delegating; Overcoming Resistance to Change; Resolving Employee Conflicts; and Confronting Issues with Your Boss.

The modules use behavior modeling as an instructional method. Specific techniques used in the training include observation of video models of skillful behavior, discussion, exercises, and practice of skills in simulated situations based on actual work settings, with feedback provided by both the instructor and other course participants. The training sessions last approximately three and a half hours each and are conducted by a trained and certified instructor. In the case of Region 5, six mid-level supervisors from a variety of program areas were selected as instructors, trained, and certified. Presentation of the course lasted for 13 weeks.

The steps of the evaluation were:

1. Administering questionnaires before and after training.
2. Tabulating results.
3. Analyzing and discussing results and developing recommendations.

Administration of questionnaires - The evaluation procedure, developed by the contractor and implemented by a third party (a graduate student with experience in evaluation), involved confidential questionnaires provided to the trainees, their supervisors, and their subordinates. At the start of the training period, the instructors distributed the questionnaires to the trainees, explained their purpose, and collected and returned the questionnaires to the third-party evaluator. Also at this time the instructors were responsible for administering the comparable questionnaires to participants' supervisors and subordinates; tasks included distributing the questionnaires either in-person or by mail; tracking the return of the questionnaires; and sending them to the third party. For participants and managers, the return rate ranged from 83% to 98%; an accurate return rate was not obtained for subordinates. The questionnaires were designed to elicit a range of responses about skills learned, as well as about the organizational climate and individual's satisfaction with supervisory performance.

A post-training version of the questionnaire (with parallel questions to the pre-training version) was sent to the same individuals a few weeks after the conclusion of the last module of training. The questionnaires have these characteristics (see Attachment for sample pages from the questionnaires):

- Behaviorally specific questions.
- Confidential and untraceable to individual respondents.
- Standardized from use with over 1000 supervisors.

Tabulation of results - The questionnaires were tabulated using a standardized statistical program (SPSS). The following tests were run:

- Statistical significance for each behavioral question.
- Comparison of manager, supervisor, and employee perceptions.
- Comparison of trained supervisors' responses with those of untrained (control) supervisors.

Analysis of results and development of recommendations - The third-party evaluator presented the written results of the questionnaire analyses to managers and trainers from the various Forests in Region 5. Summaries were developed for each Forest, and provided directly to that Forest.

The questions addressed in the analyses and discussions were:

- Did the training change supervisors' behaviors, as measured by the perceptions reflected in the questionnaires?
- Did managers, trainees, and employees agree in their perceptions of changed supervisory behavior? What were the points of disagreement, and what were the causes of differing perceptions?
- Were there supervisory skills that were more changed than others?
- Did trainee and control groups differ in extent of change?
- Were there overall patterns that indicated general organizational issues?
- What should future use be of the course?

The results of the questionnaire analyses were generally positive. Those who underwent training were rated more skillful by themselves and their managers on a broad range of supervisory skills than those who had not yet had the training. The statistics indicated that the improvement was likely not due to random effects, but to the training. The employees' ratings, as well as those of the control group, were analyzed relative to the ratings by participants, and used in the recommendations and final report.

In addition to the follow-up evaluation, the course instructors met to assess the training from their vantage point. They developed conclusions about the aspects of the training which should remain the same and those which needed improving. Also, the instructors met with administrative officers from Forests in which the training had not occurred, to discuss the specific needs of the Forest Service supervisors. The results were recommendations regarding a basic core program for probationary supervisors in all of the Forests, using certain modules from SUPERVISION. Other recommendations dealt with specialized curricula, such as on affirmative action and communications skills, which individual Forests could use.

A written report of the results and recommendations was provided to the Regional Forester, with a copy to all the Forests in the Region.

ANALYSIS OF EVALUATION METHOD

Resources required - As the Forest Service used a standard evaluation questionnaire developed by the contractor, the time required on the part of the training office in the Region was devoted primarily to logistical and coordinating activities. These included providing for the distribution of questionnaires, briefing instructors, keeping abreast of and helping to resolve administrative problems, being a liaison with the third-party evaluator, and reviewing and interpreting the results from the evaluator.

The design of the questionnaire enabled use of a standard statistical analysis program. Thus if an agency had such capability, it could process its own questionnaires without extensive additional resources. Without a pre-existing questionnaire, of course, resources would be needed to design and test a survey instrument. The time required on the part of the respondents to the questionnaire was minimal.

Advantages

- Use of pre- and post-training questionnaires with a control group increases confidence that any perceived changes in behavior were due to training.
- Obtaining perceptions from different groups (managers; participants; employees) increases confidence in results; if perceptions differ, follow-up is indicated to determine why such differences exist.
- Little time required to collect data.

- Analyses by sub-groups (Forests, in this case) enables training and non-training issues to be isolated by specific organization within the larger setting, and solutions to be tailored to those units.

Limitations

- If standard questionnaire and/or standard computer processing capability is not available, additional resources are required.
- As with any questionnaire, return rate may be a problem.
- Control group may not be available for use, which could lessen confidence in results.

Reference

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ATTACHMENT

SAMPLE OF PARTICIPANT QUESTIONNAIRE

(NOTE: Copyrighted material is provided for the single purpose of illustrating the evaluation procedure. Permission is given for reproduction of these materials for this single purpose, and not for any other purpose without the written permission of Zenger-Miller, & Associates.)

Participant's Confidential Questionnaire

We are asking you to complete a questionnaire about your current practices as a supervisor/first level manager.

Please answer each question as honestly as you can. Your answers will help the organization to see training needs and to identify progress supervisors make in improving their skills.

Your answers are confidential. A computer clerk will enter the results for tabulation. Your form will then be destroyed. The forms are processed by an outside firm.

Management will see overall summaries for the groups of supervisors/managers but will not see the results for any one person.

Please complete this with yourself in mind.

Research Code

We would appreciate your filling in your name or a unique code number given you by the person administering this research program.

Supervisor [(Name or code number)]

Trainer [(Name or code number)]

Instructions

1. Most questions can be answered by choosing one of the answers given. If you do not find the exact answer that fits your case, choose the one that is *closest* to it.
2. Answer questions by *circling* the number of your answer choice, as shown in this example.

TO A VERY GREAT EXTENT

TO SOME EXTENT

NOT AT ALL

To what degree do you like the city you currently live in? 1 2 3 4 (5) 6 7

(A response of "5" would mean that you like living in the city somewhere between "to some extent" and "to a very great extent" but closer to "to some extent.")

3. Use either pen or pencil.
4. Be sure each answer is clearly marked.

Please answer every question.

Participant's Confidential Questionnaire

TO A VERY GREAT EXTENT

TO SOME EXTENT

NOT AT ALL

Part I: To what extent do you:

1. Notice the good things subordinates do?	1 2 3 4 5 6 7	(23)
2. Carefully listen to subordinates?	1 2 3 4 5 6 7	
3. Ask questions to make sure you understand subordinates?	1 2 3 4 5 6 7	
4. Explain fully why it is important to do things a certain way?	1 2 3 4 5 6 7	
5. Express appreciation for the work subordinates do well?	1 2 3 4 5 6 7	
6. Clearly describe how a job should be performed?	1 2 3 4 5 6 7	(29)
7. Ask for subordinates' ideas about how to solve a problem?	1 2 3 4 5 6 7	
8. Receive suggestions from subordinates in a positive way?	1 2 3 4 5 6 7	
9. Offer to help subordinates solve a problem?	1 2 3 4 5 6 7	
10. Remain calm and constructive when discussing a problem?	1 2 3 4 5 6 7	
11. Focus on a specific behavior rather than calling subordinates names or attacking them personally?	1 2 3 4 5 6 7	(34)
12. Make sure that both you and a subordinate have a clear agreement about how to carry out a solution to a problem?	1 2 3 4 5 6 7	
13. Set a follow-up time to check on things a subordinate has agreed to do?	1 2 3 4 5 6 7	
14. Follow-up to check how well earlier problem solving has worked?	1 2 3 4 5 6 7	
15. Quickly work with someone whose output is low to help them improve?	1 2 3 4 5 6 7	
16. Give a subordinate frequent feedback on performance?	1 2 3 4 5 6 7	(39)
17. Consistently use the above 16 skills?	1 2 3 4 5 6 7	
18. Deal with problems quickly before they get out of hand?	1 2 3 4 5 6 7	
19. Come across as sincere, instead of manipulative?	1 2 3 4 5 6 7	
20. Seem comfortable when initiating discussions with subordinates?	1 2 3 4 5 6 7	
21. Prepare and think through what to cover in a discussion with subordinates?	1 2 3 4 5 6 7	(40)
22. Communicate respect for subordinates?	1 2 3 4 5 6 7	
23. Really understand subordinates' concerns and points of view?	1 2 3 4 5 6 7	
24. Make subordinates feel good about what they do for the organization?	1 2 3 4 5 6 7	
25. Make sure subordinates have clear goals to achieve?	1 2 3 4 5 6 7	

Part II: Overall, to what extent are you satisfied with your ability to:

26. Manage your employees' performance effectively?	1 2 3 4 5 6 7	(45)

Participant's Confidential Questionnaire

TO A VERY GREAT EXTENT

TO SOME EXTENT

NOT AT ALL

Part III: To what degree is your trainer:

27. A person with influence over your position in the company? . . 1 2 3 4 5 6 7
28. A person you respect? 1 2 3 4 5 6 7
29. A good teacher? 1 2 3 4 5 6 7
30. A likeable person? 1 2 3 4 5 6 7
31. Familiar with problems you face as a supervisor? 1 2 3 4 5 6 7
32. A person who knows how to solve supervisory problems? 1 2 3 4 5 6 7

Part IV: If the trainer is your supervisor, to what extent:

33. Are his/her management behaviors consistent with those listed in Section I? 1 2 3 4 5 6 7

Part V: To what extent do you think training:

34. Will improve your ability to be a better supervisor? 1 2 3 4 5 6 7
35. Will increase productivity? 1 2 3 4 5 6 7
36. Is a good use of your time? 1 2 3 4 5 6 7

Part VI: To what extent do you think your fellow supervisors/first level managers:

37. Think training will help develop better supervisory skills? 1 2 3 4 5 6 7
38. Think this training is a good use of their time? 1 2 3 4 5 6 7

Part VII: To what extent:

39. Do your bosses in this organization have an interest in the well-being and morale of the people who work here? 1 2 3 4 5 6 7
40. Do you feel motivated to give your best to the company? 1 2 3 4 5 6 7
41. Are decisions regarding the way work gets done made by those who have the best information? 1 2 3 4 5 6 7

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NATIONAL AERONAUTICS & SPACE ADMINISTRATION

EVALUATION OF CAREER ACTION PLANNING SEMINAR

SUMMARY

The Headquarters Training Office of NASA developed, conducted, and evaluated a career seminar. The course was designed to assist employees with defining their career goals. The evaluation consisted primarily of the following: a pre- and post-test, interim program checks during training, a participant action plan containing activities to be carried out for the month after training, and group and individual follow-ups. The results of the evaluation showed that the career seminar was successful; it thus will be used again in the future.

GENERAL DESCRIPTION OF THE EVALUATION METHOD

The Headquarters Training Office of the National Aeronautics and Space Administration conducted an evaluation of a Career Action Planning Seminar, a program designed for GS 1-9 employees. The training course was given in order to provide interested employees who were unsure about their careers a chance to find out what their career goals were. A career counselor for the Training Office developed and implemented the Career Action Planning Seminar. While she was developing the training course, she also planned to do an evaluation, including follow-up after the course was completed.

After advertising the course in NASA headquarters, the Training Office received many requests to attend the course. The course itself was 24

hours long and in the different offerings, was either broken up into 8 day - 3 hour sessions or 4 day - 6 hour sessions. The following are the basic steps of the course and the evaluation:

1. Pre-test
2. Trainee self-assessment
3. Interim program checks
4. Action plan development
5. Trainee evaluation of course at end of course sessions
6. Post-test
7. Implementation of action plan and post course group follow-up
   - Discussion at group follow-up
   - Each participant gives oral progress report and completes check sheet
   - Trainee evaluation of course
8. Trainer's evaluation of participant progress
9. Individual follow-up and counseling
10. Check on individual job changes as a result of course
    - Check on organizational records
    - Personal reports to trainer.

The following provides more detailed information on the course and the evaluation. One outline of the course is presented in Attachment 1.

Course and Evaluation Processes

Pre-test and self-assessment - At the first meeting, a pre-test was given to see what the trainees knew and how they felt about their present career situations. (See Attachment 2.) The objectives of the course were also

discussed and were the following: a) be able to use the process involved in making career decisions; b) be able to identify characteristics which impact on career decisions, skills, interests, values, and life style preferences; c) be able to use the Federal government personnel/employment system as it exists at NASA to assist in making career decisions and in ascertaining career opportunities; d) establish realistic career/career-related goal(s) and develop an action plan specifying the steps involved in reaching the goal(s).

The trainees also learned what the course would cover and what was expected of them. The trainers made it clear to the trainees that they must participate in the training course with the attitude that it is easier to change their present career situation than it is to change the organization to fit their career needs. This context stimulated the trainees to actively participate more in the course. The trainees started setting their goals and making plans to implement them at this first session.

During the course, the trainees filled out a self-assessment integration sheet, summarizing the self-assessment information they had identified about themselves. It included a summary of values, interests, and skills. Based on these skills, interests, and values, the trainees were to start to think about their action plans for accomplishing their goals. An example of the form used by participants for recording this information is presented in Attachment 3.

Interim checks and action plan development - At this point in the course, the trainer started interim program checks and interviews. Trainees filled

out interim progress sheets periodically, answering such questions as: a) Where are you now? and b) Where do you want to be? An example of the sheet is presented in Attachment 4. The interviews basically asked the same questions, but were conducted by the trainer who was evaluating their progress. These two evaluation methods provided the trainer with feedback on the effectiveness of the training program by comparing the trainee's progress at that point to the trainee's responses in the pre-test at the beginning of the course. If the trainees progressed even a little or felt that they had, then the training course would be considered successful.

During the last part of the course, the trainees developed an action plan which outlined planned activities for the coming month. The purpose of the action plan was to provide the trainees with specific guidance for accomplishing their goals while they were away from the course setting. Examples of these are in Attachment 5. The post-test was given to compare the trainee's progress achieved by the end of the course with the pre-test given before the course. (See Attachment 2.)

Finally, at the last course session, the trainees evaluated the training by filling out a questionnaire which asked questions such as, How beneficial to you was this course? A sample of the questionnaire is presented in Attachment 6.

Post course follow-up - A month later, a group follow-up was conducted, during which each trainee gave an oral progress report and completed a check sheet of what each had accomplished. The trainees also discussed the most significant action they had performed since the course and any

problems that they had encountered. The group of trainees also discussed the evaluation and the effectiveness of the course in order to see if the course helped the trainees begin to find the career that was right for them. The trainee's evaluation of the course, the post-test, and the group follow-up showed the effectiveness of the course in terms of the trainee's actual progress and his/her feelings about its effectiveness.

In addition to the questionnaires and the group follow-up, the trainer conducted individual follow-up and counseling sessions with the trainees who wanted them. The progress of the trainees and the usefulness of the course was discussed. Usually, each trainee would come in at least once, but everyone could come in as many times as desired. Since the trainer (counselor) had developed and implemented the course, these personal interviews gave important feedback about its effectiveness.

Results and Conclusions

The results from the evaluations were informal and qualitative in nature. Therefore, there were no calculations to perform. However, if one had time, more trainees could be formally interviewed and more data could be obtained from personnel records.

The evaluator concluded that the Career Action Planning Seminar was worth the effort, based on evidence that the major objectives of the course were accomplished, the trainees were developing their goals, and they were trying to use the principles on the job that they learned in the course. The evaluator also found that many trainees did change their present career

situations by transfering to other jobs or by being promoted to other departments. She learned about these changes primarily through individual counseling sessions with trainees and by using the organization's personnel records. The evaluator found enough positive indicators that the course was effective to offer additional sessions in the future.

ANALYSIS OF THE EVALUATION METHOD

Resources required

The main resource needed is time to conduct the evaluation. In this case, the evaluation was planned as a part of course development and was carried out as an integral part of course implementation. The size of the sample used for follow-up could be varied depending on the time available to collect information after the course. The group interview enables the evaluator to collect data in a shorter period of time than if individual interviews were carried out with the same number of people. A good relationship needs to exist between the evaluator (counselor/trainer) and the trainees in order for information on the impact of the course to be shared.

Advantages

- Action plans and group follow-up relatively easy to adapt to different jobs and departments.
- Relatively inexpensive to implement, especially if the trainer can do most of the training and evaluating of the program.

- Does not take long to implement the basic procedures of the evaluation, once the forms are developed.
- Easy for the trainees to understand; no difficult concepts involved in the evaluation process.

Limitations

- Management may not see the evaluation as a high priority effort.
- The process may not be structured enough for some jobs or departments.
- Working with groups could be hard, especially if there is a lack of interest or if trainees have difficulty talking about action steps taken. Getting people together may also be difficult.

Reference

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ATTACHMENT 1

OUTLINE OF THE CAREER ACTION

PLANNING SEMINAR AND EVALUATION

CAREER ACTION PLANNING SEMINAR
December 1981 - January 1982

Martha Spice

Day 1 - Morning

- Pre-seminar evaluation and initial goal statement
  Goal setting
  Affirmation statements
  Core beliefs
  Reprogramming core beliefs

Joanne Pichaske

- Afternoon

  Introductions and course overview
  Clarification of expectations
  Career fantasy
  Career development process
  Interests-Holland Code

- Assignment

  Achievements identification (5) and description (2)
  Needs survey

Joanne Pichaske

Day 2 - Morning

  Interests-SCII interpretation
  Skills identification
  Self-assessment integration sheet

Martha Spice

- Afternoon

  Reflection on initial goal statement
  Dynamics of employee selection
  Self-presentation and self-promotion
  Information interview technique

- Assignment

  Do one information interview
  Bring current SF 171

Day 3 - Morning — Barry Oertel

The internal hiring process from vacancy to selection
Self-presentation on SF 171
Avoiding self-sabotage
Practice and critique

- Afternoon — Joanne Pichaske/Dave Hornestay

Federal personnel standards
NASA outlook for advancement
Career development resources
Revising SF 171

- Assignment

Do one information interview
Revise SF 171

Day 4 - Morning — Martha Spice

Information interview success sharing
Practice session
Career goal analysis
Goals vs. objectives
Aspirations, affirmations and plans

- Afternoon — Joanne Pichaske

Goal selection
Action planning
Arrange for follow-up
Post-seminar evaluation

ATTACHMENT 2

PRE-POST TEST QUESTIONNAIRE

Career/Action Planning Seminar
December 1980

Name _____

Please answer the following questions, circling 1 for yes, 5 for no, and 2,3, or 4 for responses in between yes and no:

1. yes
2. somewhat yes, more yes than no
3. neutral, equally yes and no
4. somewhat no, more no than yes
5. no

YES				NO	
1	2	3	4	5	I can desribe the process involved in making career decisions.
1	2	3	4	5	I can list personal values, interests and life style preferences which affect my career choices.
1	2	3	4	5	I possess skills which qualify me for satisfying jobs and careers.
1	2	3	4	5	I understand how to get known at NASA as a good person to hire.
1	2	3	4	5	I am responsible for finding my own jobs and developing my own career.
1	2	3	4	5	I am able to use the personnel/employment system at NASA to help me identify job and career opportunities.
1	2	3	4	5	I know where to look for information about the skills, abilities and experience I need to qualify for specific jobs.
1	2	3	4	5	I know how to select career goals and jobs and how to plan steps to achieve them.

Please read the following 3 questions and circle T for True or F for False.

T F I have no specific career goal at present.

T F I can identify one specific career goal I have at present.

T F I can identify more than one specific career goal I have at present.

ATTACHMENT 3

INTEGRATION OF SELF-ASSESSMENT DATA

Name_____

Date_____

Integration of Self Assessment Data

1. Life Style Preferences

_____

_____

_____

_____

2. Primary Needs

_____

_____

_____

_____

3. Career Values

_____

_____

_____

_____

4. Work Values

_____

_____

_____

_____

5. Occupational Code (Holland)

_____

6. Basic Interests

_____

_____

_____

_____

7. Functional Skills

_____

_____

_____

_____

8. Transferable Skills

_____

_____

_____

_____

9. Occupations to Explore

_____

_____

_____

_____

ATTACHMENT 4

INTERIM PROGRESS SHEET

Name_____

Code_____

Career Goal Statement

I. Where are you now?

Title of position_____
Series_____Grade_____
Office_____

II. Where do you want to be?

A. Title of position_____
Series_____Grade_____
Office_____

B. Do not know goal or still undecided (check)_____

ATTACHMENT 5

ACTION PLANS

Practice

Goal Statement:

Goal Continuum

Major Tasks

Things I must do in next month

		Date
1.		
2.		
3.		
4.		
5.		
6.		

Things I must do by 3 months

7.		
8.		
9.		

Things I must do by 6 months

0.		
1.		
2.		

Use clear specific action words like call, write, join, talk to, conduct information interview with, read, register for ___. Vagueness in your plan generally guarantees vague, unfocused or no action.

List sub-tasks/strategies required to accomplish each major task. Include information which needs to be gathered, skills to develop, steps to take, people to contact.

MAJOR TASK NO.	SUB-TASK	COMPLETION DATE MO./DAY

1. Goal Statement:

Goal Continuum

Goal

Milestones

Major tasks

2. Goal Statement:

Goal Continuum

Goal

Milestones

Major tasks

3. Goal Statement:

Goal Continuum

Goal

Milestones

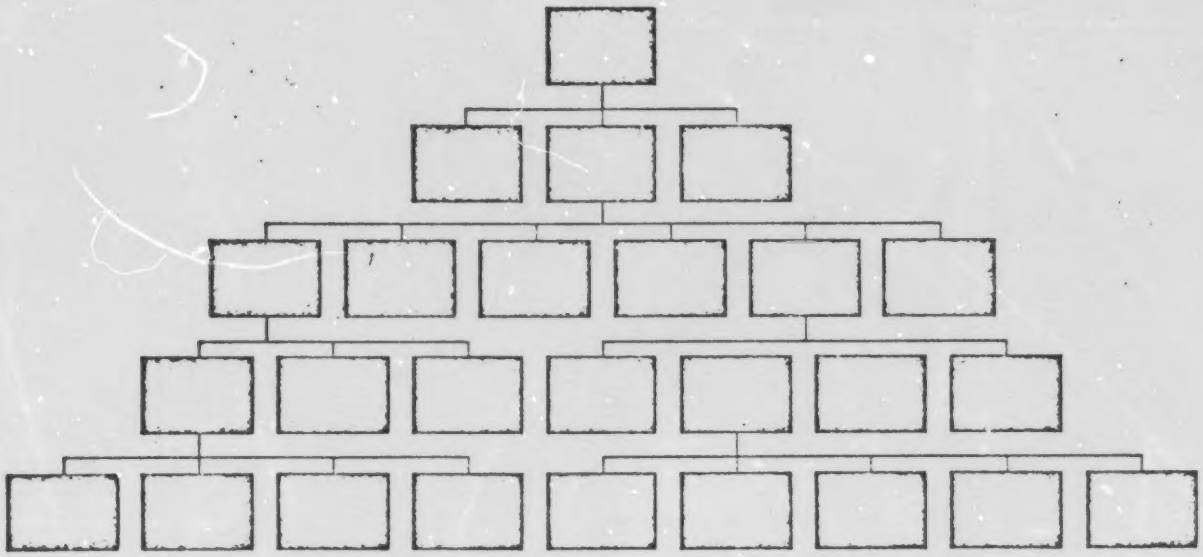
Major tasks

Goal Statement:

Major tasks for month:

SUN	MON	TUE	WED	THU	FRI	SAT

Are you satisfied with the box you're in?



What are you doing / have you done in the past 30 days to get out?

ATTACHMENT 6

EMPLOYEE EVALUATION QUESTIONNAIRE

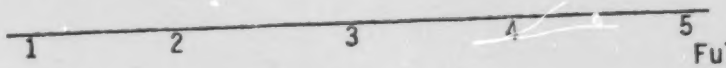
EMPLOYEE DEVELOPMENT SECTION

LEARNING CENTER COURSE EVALUATION FORM

NAME: _____ CODE: _____ EXT: _____

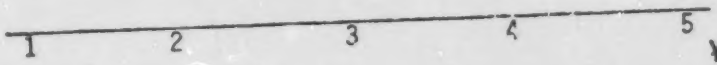
COURSE TITLE: Career Action Planning Seminar DATE: DEC. 14, 1981 - JAN. 7, 1982

1. How beneficial to you was this course? Please circle the number on the scale which applies to you



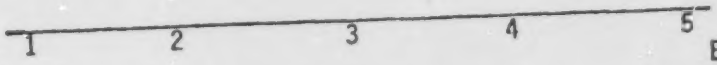
Not At All — Fully Beneficial

2. Do you feel that your objectives in taking the course were met? Please circle the appropriate number. If "no", please explain.



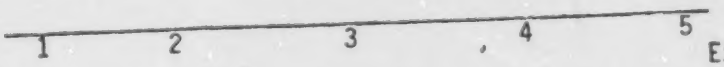
No — Yes

3. How do you rate the effectiveness of course content and materials, ie. exercises, books? Please circle the appropriate number. If POOR, please explain.



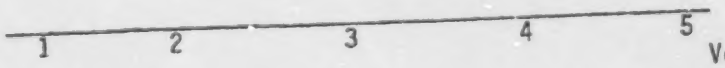
Poor — Excellent

4. How do you rate classroom facilities (equipment, lighting, noise)?



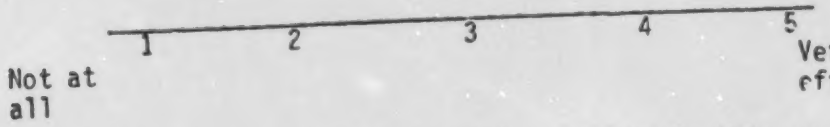
Poor — Excellent

5. How successful do you think you will be in implementing your plan of action? Circle the appropriate number.



Not at all — Very Successful

6. Overall, how effective do you think the course will be or has been in helping you identify and pursue your career goal(s)? Circle the appropriate number.



7. Below are listed the programs and activities covered in this course. Indicate with a check mark whether helpful, somewhat helpful or not very helpful.

Topic/Activity	Very Helpful	Somewhat Helpful	Not Very Helpful
Goal Setting and Affirmations			
Self Assessment Activities			
Strong-Campbell Interest Inventory			
Information Interviewing			
SF 171 Preparation			
Personnel Representative			
Action Planning			

8. Rate each instructor on the following points.

   Write E,G,S,M, or P in each block.

   E=excellent G=good S=satisfactory M=marginal P=poor

	Joanne	Martha	Barry
Knowledge of the subject			
Ability to make the course interesting			
Responsiveness to student needs and concerns			

9. Would you recommend this course to your fellow employees? (check one)

   Yes _____ No _____

10. Additional comments may be added below or on the back:

DEPARTMENT OF THE NAVY

NAVY FINANCE CENTER

EVALUATION OF INTERACTION MANAGEMENT COURSE

SUMMARY

After providing supervisors and managers with a course in Interaction Management, designed to improve employee/supervisory interactions, the Navy Finance Center (NAVFINCEN) designed an evaluation to assess the extent of skill application to the job. The evaluation was conducted jointly with the course contractor. The Training Division used an advisory committee, composed of Command managers, to acquire support for the evaluation and ideas for the evaluation's emphasis and direction.

Three parallel questionnaires were used to obtain perceptions of supervisors' behaviors in various situations - one for employees, one for the supervisors themselves, and one for managers. The questionnaires were to be distributed and filled out in a group setting. To check the adequacy of the administrative procedures and the questionnaires, a pilot test was run with a sample representing the target evaluation group, followed by individual or group interviews with the sample.

For the actual evaluation study, questionnaires were sent to trained supervisors and managers, and a sample of employees. Also non-trained supervisors and managers and their employees from one organization received questionnaires. This second group would serve as a control for the trained individuals; after the second group received training, perceptions on their job performance would also be measured using a post-training questionnaire.

Data was computer-tabulated, including mean ratings for each item and comparisons of responses among different groups (e.g., employees, supervisors, and managers; trained vs. non-trained supervisors). The Training Division shared the conclusions from the study with the advisory committee and developed plans for follow-up actions, including the use of refresher training to reinforce job behaviors.

DESCRIPTION OF THE EVALUATION METHOD

In 1980, the Navy Finance Center (NAVFINCEN), Cleveland, Ohio, began training supervisors in Interaction Management (IM). The IM training program is an off-the-shelf supervisory/human relations program purchased from Development Dimensions International (DDI), Pittsburgh, Pennsylvania. The intent of this training program is to enable supervisors to more effectively handle specific problem situations with employees. IM deals with real situations and provides supervisors with concrete steps to handle employee/supervisor interactions in the following areas:

1. Handle employee problems and situations in a manner which benefits both the employee and the organization.
2. Establish and communicate clear, objective performance goals and standards with subordinates.
3. Conduct "future-oriented" performance appraisals that result in performance improvement.
4. Fairly and confidently handle grievances and other union-related situations.
5. Provide employees with recognition for jobs well done.

Several versions of the course are given to different segments of the supervisory population at the NAVFINCEN, as follows:

Interaction Management (IM)

Content - Consists of ten modules presented over 40 hours of instruction (4 hours per week). Modules cover the following ten areas: Improving Employee Performance, Improving Work Habits, Improving Attendance, Maintaining Improved Performance, Utilizing Follow-Up Action, Utilizing Disciplinary Action, Handling Employee Complaints, Overcoming Resistance to Change, Delegating Responsibility, and Motivating the Average Performer.

Audience - This course is presented to all first-line supervisors (military and civilian).

Interaction Management/Management Reinforcement (IM/MR)

Content - Consists of the basic ten modules and in addition, two modules designed to help second-level supervisors reinforce basic IM skills in their subordinate supervisors.

Audience - This course is presented to all mid-level managers (military and civilian).

Interaction Management for Executives (IM for Exec.)

Content - Consists of an overview of the basic IM/MR modules.

Audience - Department directors (military and civilian).

The training is conducted by in-house instructors from throughout the organization who have been certified as instructors by DDI.

At the time IM was purchased, NAVFINCEN chose to train all military and civilian supervisors (both existing and newly selected) in the IM methodology to ensure that all levels of supervision were handling

similar situations with similar skills. After about two and a half years (in March 1982), the NAVFINCEN decided to see if IM had changed supervisory behavior, to determine which aspects of the program were effective and which were not, and if problems existed, to identify them. As DDI was also interested in developing an evaluation tool for IM, DDI and NAVFINCEN agreed to work jointly on the evaluation project.

The evaluation process consisted of these steps: Meeting with an advisory committee and obtaining Command approval; designing evaluation instruments; pilot testing instruments; selecting a sample and distributing questionnaires; analyzing data; and developing conclusions and planning for future actions.

Meeting of Advisory Committee

Initial support from within the Center was necessary for project success. The Training Division therefore convened a meeting with an advisory committee consisting of the directors of major NAVFINCEN departments to present the evaluation idea to them, solicit their support, and determine the areas they wanted included in the evaluation. Gaining the committee's participation in the evaluation was not difficult, as they were involved in the initial selection of the IM training program. After this meeting, the Training Division presented the idea to Command, who approved the evaluation study. The Division also briefed the union on the evaluation; the union had no problems with the effort.

Although the evaluation was initially designed to assess post-training performance, the committee subsequently requested a look at the performance of non IM-trained supervisors/managers. They felt that this pre-training data could later be compared with post-training data on these supervisors. (The pre-course survey was also suggested because such data had not been gathered on any IM-trained supervisors to date.) The advisory committee met four times during the course of the project.

Design of the Evaluation Instrument

Once Command gave approval, the Training Division began to work with the contractor in order to develop an instrument to evaluate the areas brought out in the advisory committee meeting. Although IM participants routinely complete evaluations immediately after the training, those questions deal with attitudes and opinions concerning the training. This evaluation was to focus on the supervisor's actual performance on the job.

DDI developed the basic evaluation instrument design for use with both IM-trained and untrained supervisors. The design included three separate evaluations for three groups of respondents:

Employee Questionnaire - Employees were asked to indicate how their supervisors actually performed in different circumstances on the job.

Supervisor Questionnaire - Supervisors were asked how they handled on-the-job situations. Additionally, the supervisors were asked to

evaluate the management reinforcement they received from their own supervisors during these situations.

Manager Questionnaire - Managers were asked how they handled on-the-job situations with employees under their supervision as well as how they worked with subordinate supervisors in these situations. Also, they were asked how well subordinate supervisors handled various situations with their employees.

Three evaluations (supervisor/manager/employee) were used to increase confidence in the results; all three evaluations asked questions in the following five areas:

1. Discussions on performance problems (e.g., absenteeism, housekeeping, or decline in quality or quantity of work).
2. Discussions to warn employees of possible disciplinary action and/or actually administering discipline.
3. Discussions concerning positive recognition of employees.
4. Discussions which communicate expectations regarding an employee's performance for both present and new responsibilities.
5. Discussions which arise from employee questions, concerns, or complaints.

In addition, the three evaluations paralleled one another in design (i.e., each group was asked the same questions). This approach allowed comparison of supervisors' behaviors from three perspectives.

As the IM material is designed to provide concrete, step-by-step procedures to follow, developing the evaluation was fairly straightforward. The evaluation questions were tied to specific steps taught in the class. See Attachment 1 for an example of a section from each questionnaire.

Conduct of Pilot Test

After developing the final questionnaires, the evaluators conducted a pilot test of the three forms to ensure that each group could understand them. The pilot test group consisted of 18 people - 12 employees, three supervisors, and three managers. A range of supervisors was selected to complete the questionnaires in order to obtain a variety of feedback. Included in the group were two IM-trained supervisors/managers (one positive about the program and one negative) and one non IM-trained manager.

To ensure that all three groups in the pilot test were provided the same information, a written script was prepared and used during each session. Each group was assembled and given the questionnaires to fill out and turn in at that time (this same format would be followed for the actual evaluation study). After completion of the pilot group sessions, the NAVFINCEN evaluation coordinator, plus two other Training Division specialists, interviewed the supervisors one-on-one, following a set of written questions. The interviews were used to determine if the individuals perceived any problems with the questionnaires. See Attachments 2 and 3 for copies of the scripts followed for the pilot test and interviews.

As a result of the pilot test, several minor modifications were made to the instruments. Findings from the pilot were presented to the advisory committee. They agreed to proceed with the actual evaluation.

Selection of Sample and Distribution of Questionnaires

Scheduled to participate in the evaluation study were the following groups:

1. All IM-trained supervisors/managers.
2. All non IM-trained supervisors/managers in one organization.
3. 30% of employees working for each of the groups in #s 1 and 2.

The actual participation was the following: 94% of scheduled supervisors/managers (99 individuals), and 78% of scheduled employees (207 individuals).

To ensure that all employees and supervisors were aware of the evaluation study, information was published several times in an in-house newsletter (see Attachment 4). Attachments 5 and 6 contain copies of memos used to schedule the participants for evaluation sessions. The evaluation study took place over a period of several weeks, with the group sessions conducted by the Training Division. While no major logistical problems occurred during questionnaire administration, employees did raise issues which needed to be addressed during the sessions. The evaluators recorded their observations about the sessions and developed pointers for future

efforts using similar procedures. These pointers are noted in Attachment 7.

Analysis of Data

The questionnaires were tabulated using a computer program, which generated averages (means) for each item (grouped by the five major areas covered in the questionnaires) and each type of respondent. Comparisons were made where appropriate between the trained and untrained groups, and between answers by different types of employees.

The study showed that both trained and untrained supervisors/managers handled most discussions well (i.e., employees, supervisors, and managers basically agreed on how well the supervisor handled the discussions). The major variation occurred in the areas of work performance discussions and disciplinary action discussions. In these situations, the results showed that trained supervisors handled the difficult one-on-one discussions of work problems better than the untrained supervisors. However an even greater increase in skill acquisition and use as a result of training occurred in the disciplinary area, such that the trained supervisors effectively handled these types of discussions with employees. Ratings from both managers and employees showed a significant difference in behaviors between the trained and untrained supervisors.

Developing Conclusions and Planning for Follow-up Action

The preliminary results of the evaluation were presented to the advisory committee. As the results showed that training did make a

difference in supervisory behavior, and in the ways intended, NAVFINCEN decided to continue to use IM. While supervisors' performance was generally seen as occurring in the desired direction, the level of performance could be higher. Therefore, the Training Division may conduct refresher training for supervisors to reinforce what they have learned in their initial training sessions. Moreover, a follow-up evaluation will be carried out with the untrained group, as most of them have now been through the training. This final evaluation will provide comparative data within the same group of supervisors, pre- and post-training.

ANALYSIS OF THE EVALUATION METHOD

Resources required

One employee development specialist (EDS) was assigned to coordinate the evaluation project at NAVFINCEN. The project required on the average approximately 10% of the specialist's time each week for a total of 16 weeks. The committee members' time and that of the individuals filling out the questionnaires was minimal.

The EDS's tasks centered around preparing the logistical arrangements to schedule employees with the least amount of disruption to the work flow. This included determining the number of sessions to be held, time allotments for each session, and administrative procedures during each session. Additionally, the EDS was responsible for scheduling and participating in the group meetings. The meetings were usually

conducted by the Director of the Training Division and generally required one-half to one hour.

The consultant processed the questionnaire data, with the Training Division helping analyze the results and drawing conclusions. If a training office were to do the analyses, additional internal resources would need to be allotted to the evaluation. On the other hand, if a sample were taken of participants, rather than including all of them (assuming an appropriately sized sample were selected), the investment in analysis time would be reduced accordingly.

While the questionnaires in this evaluation were computer-processed, the data could be tabulated manually, particularly if fewer participants were involved. Tabulation is straightforward but requires knowledge of basic statistics.

Advantages

- Use of management advisory committee from beginning to end contributed highly to commitment by employees and ownership of results by management. Top management approval is also important to the project's success. Management participation in planning and overseeing the effort can reduce the potential threatening nature of an evaluation and can help ensure that the results will be useful to all concerned parties.
- Responses from different vantage points to questions on participant behavior changes provide confirmation of training's impact. If viewpoints differ, results raise questions which can be pursued by training office, such as the clarity of the course's objectives, or the need for additional reinforcement of training on the job.

- Distribution of questionnaires in group setting enables evaluator to clarify points, ensures the respondents interpret the questions similarly, and increases return rate.
- If a contractor is the provider of the training, the evaluation effort can be joint, with the agency maintaining control over the process of collecting and analyzing data and interpreting results, and the contractor contributing resources.

Limitations

- Requires management commitment to ensure success of advisory committee and to permit individuals to attend group sessions. Even with such commitment from the beginning, territorial or other problems may arise.
- Extra effort and potential modification of group process required if respondents are geographically scattered or are on shift work.
- Need for computer-analyzed data if sample size large and multiple comparisons of responses are to be made.
- Organization may not have the opportunity to set up a design in which a control group (initially without training) can be scheduled for training at a later time than their counterparts.

Reference

Marge Futoran
Civilian Personnel Department
Navy Finance Center (Code 022)
1240 E. 9th Street
Cleveland, OH 44199
(Phone: (216) 522-5517 or (FTS) 293-5517)

or Ned Futoran
(Phone: (216) 522-5811
or (FTS) 942-5811)

ATTACHMENT 1

EXAMPLES OF FOLLOW-UP QUESTIONNAIRE

FOR THREE DIFFERENT GROUPS

Excerpt from: Employee questionnaire, with IM-trained supervisor, post-course

(NOTE: Copyright held by Development Dimensions International, Pittsburgh, PA. Reproduced with permission from DDI solely for use in this publication.)

When my supervisor speaks to me regarding disciplinary action, he/she . . .

	Always					Never
1. Reviews the previous conversations we have had regarding this situation.	6	5	4	3	2	1
2. Asks me for reasons why there has not been sufficient improvement in the situation.	6	5	4	3	2	1
3. Acknowledges my feelings about the situation.	6	5	4	3	2	1
4. Clearly explains the disciplinary action which could be/is being taken.	6	5	4	3	2	1
5. Asks for my ideas on how to improve the situation.	6	5	4	3	2	1
6. Uses my ideas when I offer them.	6	5	4	3	2	1
7. Restates the agreements we reach to check for mutual understanding.	6	5	4	3	2	1
8. Sets a time for future meetings on the situation.	6	5	4	3	2	1
9. Expresses confidence in my ability to correct the situation.	6	5	4	3	2	1
10. Checks back with me to see how our plans or agreements are working.	6	5	4	3	2	1

Excerpt from: Manager questionnaire, with IM-trained supervisor, post-course

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When my subordinate supervisors conduct disciplinary action conversations with their employees, they . . .

	Always					Never
1. Gather specific facts related to the problem prior to seeing the employee.	6	5	4	3	2	1
2. Review the situation with me prior to seeing the employee.	6	5	4	3	2	1
3. Review previous conversations ~~I~~ they have had regarding this problem with the employee.	6	5	4	3	2	1
4. Ask the employee for reasons why there has been no improvement.	6	5	4	3	2	1
5. Acknowledge the employee's feeling by describing the feeling he/she is expressing.	6	5	4	3	2	1
6. Clearly explain the discipline which could be/is being taken.	6	5	4	3	2	1
7. Ask the employee for ideas on how to improve the situation.	6	5	4	3	2	1
8. Agree on a specific action to be taken by each of ~~us~~ them	6	5	4	3	2	1
9. Set a time for future meetings.	6	5	4	3	2	1
10. Express confidence in the employee's ability to improve.	6	5	4	3	2	1
11. Check back with the employee to see how their plans or agreements are working.	6	5	4	3	2	1

Excerpt from: Supervisor questionnaire, IM-trained, post-course

(NOTE: Copyright held by Development Dimensions International, Pittsburgh, PA. Reproduced with permission from DDI solely for use in this publication.)

When I have disciplinary action conversations with my employees, I...

	Always					Never
1. Gather specific facts related to the problem prior to seeing the employee.	6	5	4	3	2	1
2. Review the situation with my superiors prior to seeing the employee.	6	5	4	3	2	1
3. Review previous conversations I have had regarding this problem with the employees.	6	5	4	3	2	1
4. Ask the employee for reasons why there has been no improvement.	6	5	4	3	2	1
5. Acknowledge the employee's feeling by describing the feeling he/she is expressing.	6	5	4	3	2	1
6. Clearly explain the discipline which could be/is being taken.	6	5	4	3	2	1
7. Ask the employee for ideas on how to improve the situation.	6	5	4	3	2	1
8. Agree on a specific action to be taken by each of us.	6	5	4	3	2	1
9. Set a time for follow-up.	6	5	4	3	2	1
10. Express confidence in the employee's ability to improve.	6	5	4	3	2	1
11. Check back with the employee to see how our plans or agreements are working.	6	5	4	3	2	1

ATTACHMENT 2

VERBAL INSTRUCTIONS FOR PARTICIPANTS IN PILOT TEST

PILOT TEST
VERBAL INSTRUCTIONS TO PARTICIPANTS

Good Morning/Afternoon, I'm _____

Thank you for helping us out with a training evaluation this morning. Before I explain what we're doing, I would like to ask you, "How many of you know why you are here."

(The majority of people will probably not know why)

Assure people they are not in trouble, "you are not being 'punished' by your supervisor--in fact your supervisor did not have anything to do with your selection to participate. The Training Division took a listing of all employees & selected every third one to participate. Depending on how you look at it, you are either very lucky or unlucky."

BACKGROUND

Since October 1980, we have done extensive supervisory training in the area of human relations and we are interested in evaluating its effectiveness. We plan to evaluate it through a series of questionnaires given to managers, supervisors and employees. Before we do this, we want to insure the questionnaires are understandable.

I am going to pass out the _____ questionnaire to you. Please do not complete it until I tell you to do so. Since the questionnaire is confidential, do not sign your name; however, please put your complete organization code (e.g. 44112) in the upper right hand corner.

We are going to ask you to complete the questionnaire as follows:

1. You will have up to _____ to complete the questionnaire, following the written instructions on the top sheet.

2. As you are completing the questionnaire, please place a check mark next to any items that cause you a problem. (i.e., confusing item, unclear item, etc.)

3. When you have completed the questionnaire, please let me know so I can note the time completed.

MANAGERS/SUPERVISORS

After you have completed the questionnaire, either Ned, Bill or I will talk with you to determine if there are any problems with the questionnaire itself.

EMPLOYEES

After you have completed the questionnaire, please turn it face down on the table. I will mark the time completed. Please remain at your place. When everyone has finished, we will then discuss the questionnaire to determine if you had any problems with it. WE WILL BE DISCUSSING THE QUESTIONNAIRE, NOT YOUR SUPERVISOR.

Any questions?

(When all questions have been answered, the participants may begin. Be sure you note the start and ending times of each participant.)

ATTACHMENT 3

INTERVIEW GUIDE FOR FOLLOW-UP TO PILOT TEST

PILOT TEST

Type: (CHECK ONE) ☐ Manager ☐ Supervisor ☐ Employee

INTERVIEW GUIDE FOR SUPERVISOR'S/MANAGER'S/EMPLOYEE'S QUESTIONNAIRE

The following items should be covered in the interview. (Be on the lookout for patterns of feedback -- e.g. a number of participants say "question of follow-up date was confusing on all pages.")

1. Go over the questionnaire page by page. Ask the supervisor/manager/employee if he/she "checked" any problem items.

2. Ask for any overall comments on the questionnaire.

3. Ask the following questions if they have not already been answered:

   a. Did repetition help? (i.e., asking "set a follow-up date" for each family of questions.)

   b. Were the instructions clear?

   c. Within families of questions, did any questions cause problems?

   d. Did any participant read "should" into the questions?

      (i.e., statements actually read "When my supervisor speaks to me regarding problems with my performance, he/she states..." We should insure employees have not mentally reworded it to read "When my supervisor speaks to me regarding problems with my performance, he/she should state..."). We want to get input on actual performance versus ideal performance.

   e. (FOR MANAGER'S ONLY) Did lack of "rating key" on each page cause problems?

NOTE: ACTUAL INTERVIEW GUIDE HAD MORE SPACE BETWEEN QUESTIONS TO ALLOW FOR WRITING ANSWERS.

ATTACHMENT 4

NOTICE OF EVALUATION STUDY IN IN-HOUSE NEWSLETTER

Information Log

NAVFINCEN 5000-8
Wednesday, 28 April 1982

1. FIRE DRILL.....A participatory fire drill will take place on Friday, 30 April. At 1000 the general alarm will sound in Center spaces plus the hallways and stairwells. It will be followed by a broadcast over the AUDIOEVAC system directing handicapped personnel to meet their "buddies" and directing all other personnel to walk down three floors quietly before returning to their work area.

The elevators will drop to the lobby when the alarm sounds. They will be placed back in service when the drill is complete. The cafeteria, blind stands and sub-basement vending rooms will be closed from 0930 to 1030 to permit their personnel to participate in the building-wide drill.

In Center spaces handicapped personnel and their "buddies" should assemble in the freight elevator lobbies. Managers should designate personnel who will remain behind to maintain absolutely essential operations and provide that information to their floor warden.

2. FIRE SAFETY FILMS.....The General Services Administration has arranged to present the films listed below on Friday, 30 April in the 31st Floor auditorium. Each session will last about 30 minutes. No reservations are needed to attend. However, employees who wish to go to one or more session must obtain the approval of their supervisors.

0900 - "High Rise Fire Survival"
1100 - "In Case of Fire"
"Where There's Smoke..."
1300 - "High Rise Fire Survival"
1500 - "In Case of Fire"
"Where There's Smoke..."
1700 - "High Rise Fire Survival"

3. 15 YEAR CLUB.....The 15 Year Club is sponsoring a luncheon on Thursday, 29 April in Room B-1 from 1130 to 1230. Cost of the buffet luncheon will be $4.50. Reservations and payments can be made with Mary Alexander, Room 2503, Ext. 5250 or Sarah Mohammed, Room 2317, Ext. 5714.

4. TOASTMISTRESS CLUB.....Erieview Toastmistress Club will hold its regular meeting on Friday, 30 April in Room 2069 at 1130. Program will be "Parliamentary Procedures" with speaker Ms. Madonna Smith, Registered Parliamentarian.

5. SUPERVISORY TRAINING EVALUATION.....During the period 3 May - 14 May managers/supervisors and employees will be participating in completing a questionnaire dealing with supervisory training. Although most managers/supervisors will participate, only 30% of employees will be randomly selected to participate. You will be advised in writing if you have been selected as a participant.

ATTACHMENT 5

MEMO AND SCHEDULE SHEET FOR GROUP EVALUATION SESSIONS (TRAINED GROUPS)

OPNAV 5216/144 (REV 6-70)
S/N 0107-LF-778-8099

DEPARTMENT OF THE NAVY

Memorandum

023:MF:aaq
DATE: 28 Apr 1982

FROM : Civilian Personnel Department

TO : (AA,) BB, CC, DD

SUBJ : Supervisory Training Evaluation; scheduling of

REF: (a) Training Evaluation Committee Meeting of 23 April 1982

ENCL: (1) Evaluation Scheduling Sheet
(2) Individual Scheduling Sheet

1. As discussed in reference (a), the employees shown on enclosure (1) (page 2) have been selected to participate in subject evaluation during the period 3-14 May 1982. Participants have been selected as follows:

a. Group 1 participants have been randomly selected to provide equitable coverage throughout the department. Please schedule the primary participants in Group 1 if possible. If any of them are unable to attend, please select a replacement from the appropriate list of alternates. (Alternates should be scheduled consecutively until the required number of participants have been scheduled).

b. Group 2 and 3 list supervisors/managers who have completed the Interaction Management (IM) supervisory training course. All these employees should also be scheduled to provide the most complete evaluation data.

2. After all participants have been scheduled, please provide each with a completed copy of enclosure (2).

3. Call Marge Futcran on 5811 if there are any questions. Thanks for your help!

Personnel Officer
PERSONNEL OFFICER

SUPERVISORY EVALUATION SCHEDULING SHEET

Please schedule the employees listed on the attached sheet for the evaluation sessions. Employees should be scheduled based on the spaces shown below:

GROUP 1			GROUP 2			GROUP 3		
DATE	TIME	# to be scheduled	DATE	TIME	# to be scheduled	DATE	TIME	# to be scheduled
5/3	7:30	2	5/5	1:30	1	5/5	2:30	1
	8:15	1						
	9:00	1	5/6	7:30	1	5/6	8:30	
	9:45	1		1:30	2		9:30	1
	10:30	1					2:30	
	1:30	1						
	2:15	1						
	3:00	1						
5/4	1:30	1						
	2:15	1						

Enclosure (1)
Page 1

ORG CODE AA

The following employees should be scheduled for the supervisory evaluation based on the allocation shown on page 1 of this enclosure.

GROUP 1	GROUP 1	GROUP 2	GROUP 3
PRIMARY	ALTERNATES		
Abraham Lincoln	James Madison	Millard Fillmore	Ulysses S. Grant
George Washington	John Quincy Adams	Calvin Coolidge	Warren G. Harding
Franklin D. Roosevelt	Rutherford B. Hayes	Franklin Pierce	
Woodrow Wilson	William McKinley	James Buchanan	
Thomas Jefferson			
Andrew Jackson			
Theodore Roosevelt			
James K. Polk			
Harry S. Truman			
John Adams			
Grover Cleveland			

SUPERVISORY TRAINING EVALUATION INDIVIDUAL SCHEDULING SHEET

TO: _____

You have been selected by the Employee Development Division (023) to participate in a program designed to evaluate the effectiveness of supervisory training.

Please attend the session checked below. All sessions will be conducted in Room 2748.

GROUP 1

Monday, 3 May

- ☐ 7:30
- ☐ 8:15
- ☐ 9:00
- ☐ 9:45
- ☐ 10:30
- ☐ 1:30
- ☐ 2:15
- ☐ 3:00

Tuesday, 4 May

- ☐ 1:30
- ☐ 2:15

GROUP 2

Wednesday, 5 May

- ☐ 1:30

Thursday, 6 May

- ☐ 7:30
- ☐ 1:30

GROUP 3

Wednesday, 5 May

- ☐ 2:30

Thursday, 6 May

- ☐ 8:30
- ☐ 9:30
- ☐ 2:30

If there are any questions, please contact Marge Futoran (5811).

Enclosure (2)

ATTACHMENT 6

MEMO AND SCHEDULE SHEET FOR GROUP EVALUATION SESSIONS (NON-TRAINED GROUPS)

OPNAV 5216/144 (REV. 8-70)
S/N 0107-LF-778-8099

DEPARTMENT OF THE NAVY

Memorandum

023:MF:aaq
DATE: 14 May 1982

FROM : Civilian Personnel Department

TO : YY

SUBJ : Supervisory Training Evaluation; scheduling of

REF : (a) Training Evaluation Committee meeting of 23 April 1982

ENCL: (1) Evaluation Scheduling Sheet
(2) Individual Scheduling Sheet

1. As discussed in reference (a), the employees shown on enclosure (1) (page 2) have been selected to participate in a pre-evaluation of the Interaction Management (IM) supervisory training program during the week of 17 May 1982.

a. Group 1 participants work for non-IM trained supervisors and have been randomly selected for the evaluation. (Bratemahl and FOB employees have been scheduled separately). Please schedule the primary participants in Group 1 if possible. If any of them are unable to attend, please select a replacement from the appropriate list of alternates. (Alternates should be scheduled consecutively until the required number of participants have been scheduled.)

b. Groups 2/3/4 list supervisors/managers who have not completed the Interaction Management (IM) supervisory training course. All of these employees should be scheduled to provide the most complete evaluation data.

2. After all participants have been scheduled, please provide each with a completed copy of enclosure (2).

3. Call Marge Futoran on 5811 if there are any questions. Thanks for your help!

Personnel Officer
PERSONNEL OFFICER

SUPERVISORY EVALUATION SCHEDULING SHEET

Please schedule the employees listed on the attached sheet for the evaluation sessions. Employees should be scheduled based on the following allotments:

FEDERAL OFFICE BUILDING -- Location: Room 2748

GROUP 1A		GROUP 2		GROUP 3	
DATE	TIME	DATE	TIME	DATE	TIME
5/19	8:30	5/20	9:30	5/20	10:30
5/19	2:30	5/21	9:30	5/21	10:30
5/21	7:30				

Group 1A Employees May Be Scheduled for Any One of These Sessions

Group 2 Employees May Be Scheduled For Any One of These Sessions

Group 3 Employees May Be Scheduled For Any One of These Sessions

---

RRATENAHL -- Location: COMPUTER BUILDING CONFERENCE ROOM

GROUP 1B			GROUP 4		
DATE	TIME	# to be scheduled	DATE	TIME	# to be scheduled
5/18	3:00	*	5/18	3:00	*
5/20	7:00	*	5/20	7:00	*

*Selected employees and supervisors should be scheduled for the session which occurs during their regular shift time.

Enclosure (1)

ORG CODE YY (Federal Office Building)

The following employees should be scheduled for the supervisory evaluation based on the allocation shown on page 1 of this enclosure.

GROUP 1A	GROUP 1A	GROUP 2	GROUP 3
PRIMARY	ALTERNATES		
Bing Crosby	Bobby Richardson	Cary Grant	Woodrow Wilson
Edward G. Robinson	Luis Aparicio	John Barrymore	Bob Hope
Jack Benny	Al Kaline	Clark Gable	George Washington
Al Jolson	Carl Yastrzemski	Thomas Jefferson	Gary Cooper
Neil Armstrong	Tony Oliva		Warren G. Harding
Humphrey Bogart	Hoyt Wilhelm		
Fred Astaire	Casey Stengel		
Douglas Fairbanks			
Cecil B. De Mille			
Frank Sinatra			
Dean Martin			

ORG CODE YY (BRATENAHL)

GROUP 1 B	GROUP 1B	GROUP 4
PRIMARY	ALTERNATES	
Harmon Killebrew	Maury Wills	Roberto Clemente
Nellie Fox	Dick Groat	Roy Campanella
Brooks Robinson	Willie McCovey	Johnny Bench
Lou Boudreau	Ken Boyer	Sandy Koufax
Ted Williams	Duke Snider	Warren Spahn
Mickey Mantle	Roy Face	Juan Marichal
Frank Robinson	Walter Alston	Bob Gibson
Yogi Berra		Robin Roberts
Elston Howard		
Bob Lemon		
Bob Feller		
Early Wynn		
Whitey Ford		
Dave McNally		

SUPERVISORY TRAINING EVALUATION INDIVIDUAL SCHEDULING SHEET

TO: _____

You have been selected by the Employee Development Division (023) to participate in a program designed to evaluate the effectiveness of supervisory training.

Please attend the session checked below.

GROUP 1A Room 2748		GROUP 2 Room 2748		GROUP 3 Room 2748	
☐ 5/19	8:30	☐ 5/20	9:30	☐ 5/20	10:30
☐ 5/19	2:30	☐ 5/21	9:30	☐ 5/21	10:30
☐ 5/21	7:30				

GROUP 1B
GROUP 4

LOCATION: COMPUTER BUILDING CONFERENCE ROOM

☐ 5/18 3:00

☐ 5/20 7:00

UNLESS A SESSION IS SPECIFICALLY "CHECKED", YOU MAY ATTEND ANY SESSION UNDER THE GROUP TO WHICH YOU HAVE BEEN ASSIGNED.

ATTACHMENT 7

POINTERS FOR CONDUCTING EVALUATION SESSIONS

MISCELLANEOUS "THINGS" TO REMEMBER NOT TO FORGET

The following comments apply to having the evaluation done in a group setting:

1. If you want a 30% sample, schedule more than that to allow for "no shows".
2. Bring pencils for those who don't bring one.
3. At the start of the session, let everyone know WHY the evaluation is being done, WHY they are there, and HOW they were selected.
4. If you schedule "bunches" of sessions, be prepared for the fatigue that occurs when you say the same thing twenty times.

   -- Along with that, prepare a script so that you say the same thing in the same way to each group.
5. Assure the participants that confidentiality will be maintained -- then maintain it.
6. Don't leave the room unattended. (One person came in and picked up an already completed questionnaire).
7. In the post evaluation we wanted employees to consider only the time since their supervisor completed the training. The first page of the questionnaire contained the following statement:

   "Consider only the last _____ months."

   A list was prepared as shown below:

List of Supervisors Who Have Completed 6/82 DDI Training

COLUMN 1 Name	COLUMN 2 Org. Code	COLUMN 3 Date Completed	COLUMN 4 No. of Months Since Trng. Completed
Green, Tom	AA	1/82	5
Smith, John	AAA	12/80	18
Doe, John	BC	4/81	14
Same, Uncle	WASH	5/80	25

(When employees came in I asked them the name of their supervisor and filled in the appropriate time span from Column 4. This made the session move quickly).

8. Avoid mixing groups (supervisors with employees, etc.). It creates problems in administering instructions.

9. You have to deal with employees who have just begun working for a new supervisor.

   For example:

   Mr. Employee currently works for John Doe who completed the training 14 months ago. Based on this, you have filled in "14" on the item discussed in Number 7 above. However, Mr. Employee has only been working for John Doe for one month. Since he feels he has not worked for John Doe long enough, he may automatically evaluate his old supervisor. (Be sure you iron this out before he begins filling out the questionnaire).

10. In some instances, managers were asked to answer questions on actual performance of their subordinate supervisors. Some managers ran into problems with this because of a tendency to assume behaviors rather than respond to known behaviors. To avoid this, managers were told to leave questions blank if the behavior being questioned had not been directly observed by them.

11. Managers pointed out two possible ways to look at Management Reinforcement

    a. Manager utilizes all the MR steps with his subordinates.

    b. The subordinate is doing well on the job. He comes to see his manager who says, "Keep up the good work." This is not MR as DDI would do it; however, it's MR of a sort.

12. Managers were asked to answer the questionnaire keeping in mind the time frame since they had completed the IM training. This created some concerns when their subordinate supervisors had received the training more recently. To alleviate the problem, managers were told to only consider the time frame since their subordinate supervisors completed the training.

13. Try to schedule all employees involved, even if it's somewhat inconvenient. One of our groups included shift personnel who work in another building three miles "down the road." We worked it out so that we could schedule a 7:00 a.m. and 3:00 p.m. session at their location.

U.S. OFFICE OF PERSONNEL MANAGEMENT

THE PARTICIPANT ACTION PLAN APPROACH, A GENERIC FOLLOW-UP EVALUATION METHOD

SUMMARY

The Participant Action Plan Approach (PAPA), a generic evaluation method developed by the U.S. Office of Personnel Management, is used to determine the extent of behavioral change which has occurred as a result of participants' attending a training course. At the end of training, participants fill out an action plan - a list of changes they want to implement when they return to their jobs. The evaluator follows up with the participants several months later, through interviews or questionnaires, to obtain specific examples of change, as well as other data such as factors interfering with attempted change and the impact on the organization of new efforts made by participants. Variations on the basic PAPA process include following up with participants without having them fill out action plans during the course (still collecting examples of behavioral change), and involving the supervisors of the participants in the action planning process, either before or after the course or both. In addition to an outline of the method, the description below includes specific agency applications of the technique.

(Note: The original idea for using an action plan process to evaluate training was developed by Professor James Mosel of The George Washington University.)

GENERAL DESCRIPTION OF THE EVALUATION METHOD

The Participant Action Plan Approach (PAPA) is a method for assessing the extent of individual behavioral change on the job due to participation in a training course or other type of formal learning experience. It is a flexible technique which can be adapted to a variety of courses, organizational situations, information needs, and available resources. The method was originally developed particularly for course subjects which are difficult to measure through such means as testing, observation, or collecting productivity data. It was also designed such that it could be implemented after a course had been developed and put in place.

PAPA is based on the concept of participants' developing action plans - statements of what they will do differently when they return to their jobs. The plans are to be based on the training program completed. The training evaluator then uses the plans to follow up with the participants several months after course completion to obtain information on what behavioral changes the participants have actually made. While the notion of action planning is not new or unique, PAPA takes that process one step further and uses it as a vehicle for evaluation of training.

The basic approach consists of five steps: Planning; in-course activities; follow-up activities; analysis and conclusions; and final report. These steps are described below and include some variations on the theme. An approach to collecting behavioral change information without the use of action plans is also noted. Finally, brief examples are provided of the use of PAPA in different agency settings.

The Basic Participant Action Plan Approach

Development of a plan for PAPA - In this first step, the evaluator determines the specific actions to take to implement PAPA, given the organization's information needs and the resources available. The decisions are made in concert with the "client," the person(s) for whom the evaluation information is being provided (which in some cases may be the individual doing the evaluation). The questions to be answered by PAPA are determined, questions such as: What happened on the job as a result of training? Are changes that occurred the ones intended by those providing the course? What may have interfered with participants' trying to use on the job what they learned in the training? The specific design features for using PAPA are selected at this time, such as whether to follow up with participants by interview or by questionnaire.

Conduct of in-course activities - This step consists of two stages. At the beginning of the training, participants are introduced to the idea of an action plan and are asked to consider throughout the course what they might want to do differently on their jobs as a result of the training. Then at the end of the training, participants are asked to write an action plan - a list of new activities, related to their learning experience, which they plan to try when they return to their jobs. The participants are encouraged to express their action items in specific behavioral terms. A portion of an action plan might have such statements as these:

I plan to:

1. Talk more openly with my employees when things go wrong.
2. Involve my employees more in making decisions about our shop operations.

Forms can be provided at the beginning of the course which participants can use throughout the training to record ideas for changes on the job and as guidelines for writing action plans (see Attachment 1). An action plan form is used at the end of training for participants to record action items; written guidance can be provided to the group to aid them in developing items (see Attachment 2). Options for the in-course step of PAPA include: setting aside time each day for participants to record ideas; and having pairs of participants discuss their plans with each other as a way of ensuring the plans are realistic and clear.

The evaluator keeps one copy of the participants' plans, to use during the follow-up.

Follow-up with participants - At a planned time after the training (usually one to six months later), participants are contacted either through interviews or questionnaires. They are asked questions about implementation of action items, other new behaviors attempted as a result of attending training, the effects that their new or changed behaviors have had on their work environment, and what if any problems have occurred in transferring what they learned to the job.

If interviews are used, they can be done in person, by phone, or through a combination of the two. If the interview approach is used, a good policy to follow is to send a reminder letter to participants asking them to think about the implementation of their action plans and indicating that they will be contacted shortly (see Attachment 3). Even for telephone follow-ups, an appointment should be made with the participants for the interviews. A semi-structured interview format can be used (see Attachment 4), with a copy of the action plan in front of the interviewer (and preferably the participant as well). The key to the use of PAPA as an evaluation tool is to obtain specific information about behavioral change. Probing, asking for specific examples, and having the participants compare performance pre- and post-training, are techniques to elicit information useful in assessing course effectiveness.

The two methods of interviewing each have their advantages. In-person interviews, for instance, enable the interviewer to react to non-verbal cues, to establish rapport, and to see samples of work products related to behavioral changes. Telephone interviews enable the interviewer to reach geographically dispersed participants and may in some cases put participants more at ease if they are describing less than successful results of attempted on-job changes.

The questionnaire approach to following up is useful if time is not available to conduct interviews. On the other hand, the problems of using questionnaires apply here as in other situations - return rate can be low and responses are likely to be at different levels of detail and

completeness. Given the criticality to PAPA of specific examples of behavioral change and the effectiveness of methods such as probing to obtain such examples, interviews tend to provide better quality data. Examples of instruments for the questionnaire approach are found in Attachment 5.

Other variations in the follow-up step, besides the basic method of collecting data, include these:

- Contact a sample of participants rather than an entire class. This is particularly appropriate when interviews are used and the participant population is large. If questionnaires are used, the whole class should be contacted unless the group is of considerable size.
- Following up with supervisors, subordinates, and/or peers of the participants. This effort can provide corroboration of participant information, add examples of change, provide a basis for possible future organizational consultation by the trainer if discrepancies appear among the various respondents, and increase overall the richness of the data. The organization's climate, however, may make such contacts appear threatening to the participants and may inhibit what participants develop for their action plans. Furthermore, the time for such additional contacts may not be available. Finally, evidence has shown that, with proper interview techniques, participant self-reports of change match the reports of others working with the participants.
- Reassembling the class to fill out the questionnaires. This approach can ensure a high response rate if most members of the class are able to meet. It also provides an opportunity for a group interview to discuss

the use of new skills and knowledges on the job. Particularly if the participants' jobs and work settings are relatively homogeneous, a discussion may trigger more examples of change and ideas for program improvement than would be generated by each person responding separately.

- Involving the participant's supervisor before the training. Ideally supervisors discuss beforehand the training program an employee is to attend, to clarify expectations about what can be learned and used on the job. Particularly if the learning objectives are clearly performance-based - related directly to the work - pre-course supervisor/employee discussions will set the stage for learning and for the development of an action plan immediately relevant to the job and likely to be supported by management.
- Tailoring both in-class action planning and follow-up questions to course objectives, modules, subject areas, or some other structure which would enable participants to focus systematically on each course segment or goal, and would enable the evaluator in turn to collect and analyze information along pre-determined and easily usable lines.

Analysis of findings and development of conclusions - The fourth step of PAPA involves sorting, categorizing, and displaying the data collected in order to show the extent and type of change. The information can be displayed in the form of descriptions of behavioral change; it can be summarized numerically (e.g., how many of the class participants changed in certain ways); or it can be reported using a combination of narrative and numbers.

The following are the kinds of data that can be analyzed:

- The action items themselves. Do items match course intentions?
- New behaviors displayed on the job. How much were they related to intended changes? How closely were changed behaviors related to course objectives? How many people attempted what kinds of change?
- Outcomes of behavioral change. What results occurred when participants attempted change? How did changed behavior impact the organization?
- Judgment of outcomes. Was the result of the behavioral change and outcome positive? negative? mixed? If outcomes of change were not positive, the nature of the training program needs to be re-examined.
- Problems and concerns. What barriers or difficulties did participants encounter when attempting change? Does the course need to be modified? Should the training staff take other actions, such as follow-on support or consultation with participants or others?
- Planned behaviors. If participants cite a number of intentions of change in the future, additional follow-ups may be required.
- Non-behavioral changes. Attitudinal and knowledge changes can be separated from behavioral changes in the data analysis, and each type of "change" can be compared to course intentions.
- Course comments. Participants can be asked about their reactions to the course, from the perspective of having been back on the job for a period of time.

Development of report - The data collected, analyses made, and conclusions drawn can be presented in a report in whatever format and level of detail is appropriate to address the client's interests and needs. The results of

a PAPA evaluation can be used for such purposes as:

- Revising the training.
- Attracting appropriate participants to the course.
- Investigating possible supplements to the training, such as technical assistance on the job, additional training, or job aids.
- Justifying continuation of the training.
- Comparing effectiveness of different training programs or formats.
- Providing line managers with information they need to make decisions about sending employees to a training course.

Following Up Without Action Planning

A major variation on the PAPA process described above is to follow up with participants without having them fill out action plans during the course. Instead of starting the interview or questionnaire with action plan items, the follow-up can begin with a general question about anything participants may be doing differently on their jobs as a result of training. Specific questions and probes can follow, as with the standard approach. If the course content can be segmented by objective, module, subject matter, etc., specific questions can be added about any changes which may have occurred in each specific area. As with PAPA, concrete examples of behavioral change are critical to data quality.

Agency Examples of PAPA Applications

During OPM's testing of PAPA, the method was used in the following courses: A management communications course (using transactional analysis) for civilians in a military setting; a personnel management course for

supervisors at a large agency; an interagency position management course for personnelists and supervisors; a course on training evaluation previously offered by OPM; a team-building course for managers in two divisions at a military base; a university-provided course for local police managers. The PAPA applications summarized below were done independently by the organizations cited and demonstrate various uses of the method.

OPM San Francisco Region - In order to assess the impact of their interagency training courses, the San Francisco Region of the U.S. Office of Personnel Management has used PAPA in conjunction with other measurement techniques. Their approach has been to combine post-course comment questionnaires (for reaction data); pre-/post-course tests of knowledge, based on class objectives (for learning data); and the Participant Action Plan Approach, sometimes combined with pre-/post-course supervisory questionnaires/interviews (for behavior and results data).

An illustration of this approach is the Region's evaluation of the course "Introduction to ADP Systems Analysis - Phase I." This course is specifically designed for those who are preparing for assignments in computer systems analysis or for those who must deal directly with systems analysts or computer user personnel. Managers and staff specialists who have responsibility for ADP application conversions are also encouraged to attend this course. Thus, participants come from diverse backgrounds with diverse expectations. The evaluation project was designed to answer these questions: Do the participants learn the material presented in the class? Are the participants able to use the knowledges and skills acquired in the course back on the job? Are the participants more readily able to

communicate with others about ADP system applications and/or design? Information was gathered from two interagency classes totaling 44 participants. Along with reaction data and a criterion-referenced pre-test and post-test, the regional staff used telephone interviews to follow up with participants.

For the in-class test, the paired t statistic was used, matching an individual's pre-test score with the post-test score. An attempt was made to control for learning via the test-taking by giving no feedback to participants after they took the pre-test, either on their scores or on the correct answers. Each person used a three-digit code on all instruments rather than his/her own name, in an effort to reduce anxiety about the testing.

For the post-course follow-up to assess degree of behavior change, regional office staff attempted to contact all participants by telephone. Ultimately about half the participants were interviewed. Results were obtained on the percent of interviewees who had completed or were in the process of completing their action plans. Types of behaviors were grouped by categories, such as ability to understand reports generated from existing systems, and enhanced capabilities to communicate with others with resulting improved job performance. Also participants were asked if they were doing anything else differently on the job that they thought was due directly or indirectly to having taken the course (other than items listed on their action plans). Similar behaviors obtained from this question were also grouped into categories. As a result of findings from all the data-gathering methods used, changes were made to some aspects of the course,

with the decision to continue to include participants from diverse backgrounds.

Other applications of PAPA by OPM's San Francisco Region demonstrate several variations on the basic PAPA process. For instance, a course on "Representing the Agency Before the MSPB and the EEOC" has been provided to attorneys and non-attorney management representatives for agencies. In addition to collecting course reaction data and giving pre-/post-course tests for learning, regional staff focused the follow-up telephone interviews on specific applications of the material learned to cases encountered by participants when they returned to their jobs. Participants were also asked about potential or actual cost savings to their agencies as a result of changed behaviors, as this outcome was an expected result of the training. Finally, the participants' suggestions for improving the training were solicited, from their perspective six weeks after course completion.

In a course on "Secretarial Decision Making and Problem Solving," OPM was interested not only in behavioral changes as perceived by the attendees, and what may have interfered with changes, but also in perceptions of changes by the managers who sent the individuals to training. Mailed questionnaires and telephone interviews were used to follow up with both the participants and their supervisors. Data from the supervisors confirmed the changes cited by the participants.

The Region's observations on using the PAPA technique include the following:

- Optimum time for collecting follow-up data varies according to the nature of the course, i.e., in some cases eight weeks was not time enough for participants to complete their action plans; in other cases 12 to 16 weeks was too long because of the fluidity of movement at the clerical level.
- Supervisors and participants were more candid in their responses during the follow-up when told they were talking to someone not directly involved with the courses.
- The quality of responses obtained through telephone interviews was much greater and the responses much easier to understand than repsonses obtained through mailed questionnaires. Overall, while telephone interviews are more time consuming, the end product is greatly superior to mailed questionnaires.
- Participants felt positively about using action planning; the process caused them to think about applications to the job throughout the course.

For information on the OPM San Francisco Region's use of action planning, contact:

Sharon Levy
Workforce Development Division
San Francisco Region
U.S. Office of Personnel Management
120 Howard Street, 2nd Floor
San Francisco, CA 94105
(Phone: (FTS) 454-7802,
or (415) 974-7802)

Economic Development Institute of The World Bank - A trainer at the Economic Development Institute (EDI) of The World Bank has used PAPA as an evaluation method for international training courses. It was pilot-tested in China, in a course module on teaching methods, using the standard PAPA process and following up through interviews. PAPA was then integrated into three other courses taught in Washington, D.C.: Rural Credit (designed to teach appraisal of credit to farmers); National Economic Management (designed to teach economic policy-making); and Industrial Projects (designed to teach the methodology of project appraisal). Participants in the course sessions for which PAPA was used were from third world developing countries.

These evaluations used questionnaires for follow-up data collection. Six to eight months after the completion of the course, the trainer/evaluator sent a follow-up letter and questionnaire to participants. For those individuals who did not respond within the next three months, he sent a reminder letter, which yielded additional responses. To facilitate the individuals' completion of the questionnaire, the evaluator filled in the items at the beginning - course name, individual's name, specific action item, etc.

Observations from the trainer applying PAPA in these settings include the following:

- When the trainer/evaluator (who was one of the course instructors) personally explained the purpose of the evaluation to the students, stressing the importance of their participation in the effort, the quality of the plans and the return rate for the questionnaires were

higher than when the action plan forms were simply handed out to the class. In the former situation, the evaluator also sent the cover letter transmitting the questionnaires, linking the personal touch in the course to the follow-up.

- Better plans result when participants are given time to work on their plans during the course (module by module, for instance), than if participants have time only at the end of the program (when the trainees are usually rushing out the door). The instructor therefore needs to build such time into the course and to convey to students the importance of developing the plans.
- With questionnaires, a great investment of time particularly goes into the administrative tasks, such as printing questionnaires, preparing them for mailing, and tracking their return.

The EDI has also used the form of follow-up in which participants do not develop action plans but are contacted some months after training in an attempt to assess behavioral change. The trainer used a consulting firm on-site to interview about 60 participants from Nairobi, Kenya, who had attended various World Bank courses. The effort produced specific examples of change, as well as organizational issues which needed addressing (e.g., resistance from others as the participants tried to implement changes). On the other hand, efforts to follow up participants who had not developed action plans by using questionnaires rather than interviews, yielded few responses.

Finally, PAPA itself is being used to measure the extent to which the EDI teachers use the PAPA data to change their own courses. An interview format for such teachers includes the following questions:

- As a result of reading the evaluation data do you plan any changes in your course?

Changes in these areas	From action item list	From 6 months evaluation
Objectives:		
Announcement:		
Content:		
Teaching Methodology:		
Evaluation Procedures:		

- Are there any other changes you might make?

- Are there changes you were considering but will not make because the evaluation data confirms your previous strategy?

For information on the World Bank's use of PAPA, contact the following individual:

Robert B. Youker
Education and Manpower Development Division
Eastern Africa Region
The World Bank
1818 H Street, NW
Washington, DC 20433

ANALYSIS OF THE EVALUATION METHOD

Conditions for use

- Willingness of course director to have action plan process built into course.
- Organizational support for follow-up contact with participants after course completion.
- Instructions and forms for in-course action planning and for following up (interview formats or questionniares).
- Participant "buy-in" to action plan process, and cooperation during follow-up data collection.

Resources required

The time required on the part of the evaluator is primarily related to conducting the action plan exercise during the course - about an hour (although this could be done by the instructor); preparing for and carrying out the follow-up (interviews may take 30 - 60 minutes each); and analyzing and writing up results (can be double or triple the time that it took to do the interviews if that option is used). Clerical staff can be used to prepare questionnaires for mailing and tracking their return. The participants, aside from spending time to do the action plan, are required to devote the 30 minutes or so to the interview or questionnaire process. As PAPA is a generic evaluation method, the standard forms, instructions, interview guides, etc., can be adapted to any particular situation with minimal resource investment.

Two kinds of expertise are required to apply PAPA. If the recommended follow-up approach is chosen, interviewing skills are needed. Training can be provided to those who conduct the interviews; also time can be saved by using

more than one interviewer, as long as all interviewers have the same understanding of the nature of the course, the questions to ask, and the type of information which is to be collected. Basic analytical ability is needed to sort and synthesize the data and draw logical conclusions, but no statistical analysis is required.

Nature of information produced

PAPA yields qualitative data primarily on behavioral change brought about by training. The changes may have been those intended by the instructional process or they may have been incidental to the course's objectives (such as information obtained from others in the class and useful in the participant's own setting). Depending on the follow-up questions asked, information may also be obtained on participant reactions to the course, on what they felt they learned, and on the organizational results of any behavioral changes.

Advantages

- Can be used to assess a variety of courses, particularly those difficult to measure through objective techniques.
- Can be used by itself, or in concert with other evaluation approaches.
- Design of the process, and nature of questions asked in follow-up, can be changed to meet particular information needs and organizational circumstances, while retaining the basic approach.
- Does not require extensive evaluation or measurement expertise.
- Can be used for different training and development formats, e.g., short classroom courses; executive development programs (individual development plans can become the action plans; follow-ups can be made after each assignment or course); career counseling efforts (again, an individual development plan can be the vehicle for follow-up by the

counselor).

- Course being evaluated need not have behavioral objectives, nor are pre-course measures necessary to assess change; PAPA can still be used if either or both of those conditions exist.
- The action plan can serve as a vehicle for supervisor/participant discussions about using what was learned on the job.

Limitations

- Relies on self-reports, and on skilled interviewers to obtain specific information needed.
- Time required for interviewing and analysis; possibility of limited quantity and quality of data if questionnaires used.
- While PAPA can provide a "red flag" for areas needing improvement, additional data should be gathered if consideration is being made to discontinue course.
- Is not the best approach to use when more direct means are available to assess behavioral change.

Reference

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ATTACHMENT 1

GUIDELINES FOR WRITING ACTION ITEMS

IDEAS FOR ACTION ITEMS

Course _____ Dates _____

Ideas I would like to try out when I return to work, based on what I learned in this course.

Note: You can use the course objectives, what you learn in class, the course handouts, conversations with others, etc., to come up with ideas.

GUIDELINES FOR WRITING ACTION ITEMS

I. What an Action Item Looks Like

A. The most important characteristic of an action item is that it is written so that you--or someone else—will *know when it occurs*. One way to help achieve this is to use specific *action verbs*. The following is a list of such verbs: [1]

Mental Skill		Physical Skill	Attitude
State	Demonstrate	Execute	Choose
Name	Discriminate	Operate	Volunteer
Describe	Classify	Repair	Allow
Relate	Generate (a solution)	Adjust	Recommend
Tell	Apply (a rule)	Manipulate	Defend
Write	Solve	Handle	Endorse
Express	Derive	Manufacture	Cooperate
Recount	Prove	Calibrate	Accept
	Analyze	Remove	Decide to
	Evaluate	Replace	Agree

B. As you are working on the action items, ask yourself: *Is the behavior described observable?* Will it be obvious to me or others when it happens?

C. Examples of action items:
As a result of being in this course I plan to:

1. *Describe* this course to my supervisor within a week of my returning to the job. As a result, my supervisor will know: the contents of the course; how I can apply what I learned to the job; and whether or not others in the organization should attend.
2. *Handle* every piece of paper only once in order to improve the management of my own time. Begin as soon as I am back on the job.
3. *Apply* the principles of performance analysis to the problem of incomplete and tardy case reviews in my division; request assistance from the training office, as needed. As a result, I will know whether training is required and/or some other solution is appropriate to reduce the problem. Begin within a month upon returning.
4. *Talk* with my employees directly about a problem which arises, rather than avoiding a confrontation; discuss the situation in order to reach mutual understanding.
5. Within two weeks after I return, *negotiate* with my supervisors to implement a _____ system in my unit, and come to an agreement on whether or not I can proceed.

II. Implementing the Action Item

A. As you proceed to develop action items, be sure to *think of yourself in your actual job setting*, implementing the activity you have described.

B. If you have an idea of *when* you will be able to begin implementing the action items, you can make a note of it. Three categories can be chosen: (1) "as arises" (you don't know when the opportunity to try this item will occur); (2) "within 2 months"; and (3) "after 2 months."

C. You may find that you cannot try out your ideas exactly as you envisioned them, or that it is difficult to be specific. That's o.k.—it is still important to write out your *intent*, as a tentative plan, knowing you may have to modify it once you are back on the job. *Try to develop at least two or three action items*—one may not work, so it's handy to have others.

[1] Chart modified from *Interservice Procedures for Instructional Systems Development: Phase II-Design*, Robert Branson, et. al., Florida State University. AD-A019, page 12.

ATTACHMENT 2

ACTION PLAN FORM AND QUESTIONS

ACTION PLAN

COURSE TITLE _____ NAME _____

DATES _____

ACTION ITEMS I plan to:	Start to implement (check if known). within 2 months	after 2 months	as arises

QUESTIONS ABOUT YOUR ACTION ITEMS

A. *Preliminary Nature of Plan*
- Were you specific in writing the action item?
- What will you need to do when you return to work in order to find out which actions are possible?

B. *Resources*
- Who would be carrying out the proposed action, or helping with it (formally or informally)?
- Are the skills for carrying it out available?
- How much time would this take?
- Are there special materials or equipment required?
- What is involved in obtaining them?
- Will you be using a tool or system or aid from this course?
- How much adaptation is required?
- Is continual monitoring or follow-through required?
- Who will do it?

C. *Implementation*
- Do you have the authority to implement the action?
- If not, who does?
- How do you think you can go about getting approval?
- What do you think the degree of support is for your idea?
- Will you need to sell people on it?
- Who?

D. *Effects*
- Whom will this action affect ?
- How will it affect them?
- Will anyone be the worse for the results?
- Anyone improved?
- What will be affected?

E. *Environment*
- What in the organizational environment might interfere with your doing this?
- What in the organization would support your efforts?

ATTACHMENT 3

FOLLOW-UP LETTER (INTERVIEW)

SAMPLE FOLLOW-UP LETTER

Dear _____ ,

Several months ago you attended the course (___name of course___). At the end of the program, you developed some action items—ideas for new behaviors—you might try out once you returned to your job. At that time, I said that I would be getting in touch with you to find out how you were doing in implementing your plans.

Now is the time! Either I or another member of our staff will be calling you in a week or so to make an appointment to talk (by telephone) about your action plan. As a result of our discussions with all the course participants, we will be able to tell the course director how the course has affected the way participants now do their jobs. As you know, our report will cover the class as a whole, and no names will be used.

During our conversation we will ask you how you fared with the action items you wrote down, about anything else you've tried since returning to your job, and about any problems you might have encountered. This information will be used to improve the course and ensure its usefulness to participants once they are back on the job.

Sincerely yours,

ATTACHMENT 4

INTERVIEW FORMAT

INTERVIEW GUIDE AND DATA LOG

Directions

This attachment contains suggested questions to be asked during the interview. Probes for getting very specific information follow the initial questions. Use them as appropriate. Space is provided below the questions for recording the participants' answers.

Course _____ Today's Date _____

Does participant have action plan? _____ Interviewer _____

Name _____

Guide for the Interviewer

This is (___your name___) from (___name of your office___).
We talked (___say when___) and arranged to discuss your action plan.
Is this still a good time?
Do you have your action plan from the (___name of course___) course in front of you? (IF "NO") Can you get it now? (IF "NO") We can work from my copy.

What I'd like to do is go through the items you wrote down at the end of that course, and ask you some questions about them. Then you can bring up anything we might have missed, including any behaviors resulting from training which were not on your action plan.

(Make sure answers are specific enough so that you can envision the behavior being described.)

Let's start with the action item which says, _____

_____

_____

INTERVIEW GUIDE AND DATA LOG

Have you been able to do this yet?

1. (IF "YES," THEN USE THESE STANDARD PROBES, AS APPROPRIATE. IF "NO"—GO TO # 2.)

- Could you tell me more about that? What was the result?
- Could you give me an example of that? What was the result?
- How would you characterize the result? Was it positive? Negative? Did it have both positive and negative aspects?
- How did you carry that out? Who was involved? Have they been to the course? What was the result?
- Have you done that more than once? Any difference each time?
- How is that different from before?
- Were there any problems in carrying that out? What were they?
- Will you continue to do this? Foresee any problems?

Record answers below:

WHAT (with examples):

RESULT:

HOW CHARACTERIZED (positive, negative, mixed, unknown):

BEFORE:

PROBLEMS:

INTERVIEW GUIDE AND DATA LOG

2. (IF "NO," THEN USE THESE PROBES, AS APPROPRIATE.)
   - Why do you think that was the case?
   - Any other reason you can think of?
   - If the (problem) had not occurred, do you think you could have done that?
   - Are you still interested in doing this?
   - If so, how do you think you can make it happen? Foresee any problem?

Record answers below:

WHY NOT:

OTHER REASONS:

STILL INTERESTED:

CAN YOU MAKE IT HAPPEN:

(If appropriate, use previously developed questions to relate behaviors to learning objectives.)

INTERVIEW GUIDE AND DATA LOG

3. O.K., we've been talking about _____.
   Have you done anything (else) similar to this? (If "YES," use standard probes listed under #1.)

(Repeat questions #1-3 for each action item.)

4. We've talked about your specific action items. Is there anything else that you are doing differently on your job since attending the course that you think is due, directly or indirectly, to your being in that course? (If "YES," use standard probes listed under #1.)

   Anything else?

5. Is there any way you think the course should be changed, to make it more useful to you on your job?

   Anything else?

6. (Optional) What do you think about writing an action plan at the end of the course? Did it help you apply what you'd learned?

7. (Optional) What do you think about this follow-up?

ATTACHMENT 5

QUESTIONNAIRE FORMAT

SAMPLE FOLLOW-UP COVER LETTER

Dear _____,

Several months ago you attended (name of course). At the end of the program you developed some action items—ideas for new behaviors—you might try out after you returned to your job. At that time, I said that I would be getting in touch with you to find out how you were doing in implementing your plan.

Now is the time! Enclosed are a questionnaire and a preaddressed envelope. For our follow-up evaluation of this course, we would like you to answer some questions about your action items and the usefulness of the course to your job. Directions for completing the questionnaire are enclosed. If you have misplaced your action plan, call me at (your phone number) and I will send you a copy.

As you were told in class, you can be sure that your privacy will be protected in any use made of this questionnaire. Our report will cover the class as a whole, and no names will be used.

After completing the questionnaire, you may want to let it sit a day or two and then reread it before sending it directly to (address) in the preaddressed envelope. We will call you to remind you about returning it to us if we have not heard from you by (date). Thank you for your cooperation.

Sincerely yours,

Enclosures

QUESTIONNAIRE

Directions For Filling Out the Questionnaire

The questionnaire contains three sets of questions: X, Y, and Z.

Set X should be used for action items which you have tried to carry out, regardless of how successful you were in your efforts.

Set Y should be used for action items which you have not yet tried to carry out.

Note: *For any action item, use only one set of questions,* either X or Y, not both.

Set Z should be answered regardless of what happened with the action items.

Procedure

1. Look at your action plan and, taking each action item in turn, decide whether it is a Set X or Set Y item.
2. Copy each action item in the blank at the top of the appropriate set of questions, either X or Y.
3. Write your answers directly below the questions. If you run out of space, use the other side. Any unused parts of the questionnaire can be thrown away.
4. Set Z contains questions that are self-explanatory. As before, please record your answers below the questions.
5. After you have completed your questionnaire, please place it in the enclosed envelope and mail it back as soon as possible.

   Thank you.

SET X

Name _____ Date _____

I am discussing the action item which says: _____

_____

a. Describe how you tried to implement this item, including, as appropriate, the following information:

- What you did or said
- How you did it
- Who was involved
- How often you tried it

Please be specific enough so that the reader can visualize what happened.

b. Describe what happened when you tried to implement this item.

- What happened as a result?
- How do you feel about what happened?

(Was it positive, negative, partly positive and partly negative, or don't you know yet?)

SET X

c. How is what you are doing on this action item different from what you were doing *before* you attended the course?

d. Did you have any problems in trying out this action item? If so, what or who got in the way of doing it?

- Was there anything else you needed to know in order to carry out this action item?

e. Do you think you will continue to try out this action?

SET Y

Name _____ Date _____

I am discussing the action item which says: _____

_____

_____

a. Describe why you were not able to carry out this item yet. For example:
   - Has the right opportunity not presented itself?
   - Have things in the organization changed such that it is no longer relevant?
   - Do you need other information or skills to try it? (What are they?)

b. Can the action item still be done? If so, what is needed to make it happen?

SET Y

c. Are you still interested? If "NO", why not?

SET Z

Name _____ Date _____

a. Is there anything else that you are doing differently on your job that you think is due, directly or indirectly, to your having taken the course? (If so, please answer any of the questions in Set X which apply.)

b. Is there any way you think the course should be modified to make it more useful to you on your job? Please list any suggestions for improving the course (course content, structure, length, etc.) you might have.

c. (Optional) Do you feel that developing an action plan as part of the course was a helpful exercise? Explain why or why not.

d. (Optional) Did you find this follow-up questionnaire a helpful exercise? Explain why, how, or why not.

DEPARTMENT OF THE TREASURY

BUREAU OF GOVERNMENT FINANCIAL OPERATIONS

EVALUATION OF THE BUREAU'S PROGRAMMATIC TRAINING COURSES

SUMMARY

During a year of expanding new course offerings, the Bureau of Government Financial Operations (BGFO), Department of the Treasury, launched a program evaluation effort, in which assessments of participant reaction, learning, and changed job behavior were made. Standard evaluation measures were developed, then adapted to each course. Participants developed action plans at the end of each course. Follow-up measures included questionnaires to participants and their supervisors, and discussions with supervisors whose opinions about changed behavior differed from those of the participants. A year-end analysis of course and trend data, presented to Bureau management, led to increased support for the training function as well as plans for follow through on organizational barriers to behavioral change.

DESCRIPTION OF THE EVALUATION METHOD

The Bureau of Government Financial Operations (BGFO), part of the Department of Treasury, is responsible for making the Government's payments and collections, doing the central accounting for and reporting on these transactions, and doing so with sound cash management. The Bureau employs 3500 people to carry out its money management role.

BGFO's Programmatic Training Section provides about 75 sessions a year of in-house training in various technical areas. Examples of courses offered include: Governmental Bookkeeping and Accounting; Documentation and Analysis for Presentation; Secretarial Techniques; Effective Writing Workshop; and Time Management for Managers.

During 1980 - 1981, when BGFO was expanding its training program to this level, an evaluation process was also implemented in order to measure the effectiveness of the training courses. For each of the 21 new courses, with 71 training sessions in total, three levels of evaluation data were collected: Reaction, learning, and transfer of skills to the job. The Section supervisor designed the model for the evaluation, with each training specialist adapting it to specific courses. An overall assessment of training was made at the end of the year. Each aspect of the evaluation is described below, with particular emphasis on the follow-up effort to determine changed job skills.

Measurement of reaction - A standard reaction form with a five-point scale was used to obtain participants' opinions on the course process and the value of the course to the participants. Additional questions were asked which were specific to each course. The training staff displayed the results using bar graphs, as part of their course analysis and report (see below).

Measurement of learning - The training office used a variety of approaches to measure participant learning. For the Telephone Communications course, for instance, a paper-and-pencil test measured participants' level of knowledge both before and after the training. The results from the pre-test were used to focus on areas needing emphasis during the course. For the course on briefing techniques instructors judged the oral presentation skills of participants over time during the course. Writing samples were obtained from employees before they participated in a writing skills course. Other techniques used to assess participant learning and provide feedback during the sessions were role plays and case studies.

The degree of learning was measured against established criteria for each course. For example, in the BCFO Instructor Training course, criteria included number of mistakes using A/V equipment; number of questions asked of the group; and number of notes used in the presentations. Participants were expected to improve in these areas with each of the three presentations that they gave during the course.

In their reports on each course, instructors described degree of learning through narrative analysis and line graphs.

In all of the programmatic and managerial courses, participants developed action plans, listing two or three areas of change they planned to accomplish during the next three to six months, based on the behavioral objectives of the course. The plans were filled out in duplicate, with the participants keeping a copy as well as the course instructor. (See Attachment 1 for copy of blank action plan.) Also during the course, to set the stage for the follow-up evaluation, the instructors emphasized the importance of evaluation as a means for measuring and improving course effectiveness. The instructors also urged participants to share what they learned with their supervisors.

Measurement of transfer of learning to the job - Follow-up measures used included a separate questionnaire for participants and their supervisors, sent to the individuals about three months after the completion of a session (see Attachment 2). These questionnaires were accompanied by a copy of the course objectives and, for the participants who filled out action plans, a copy of their plans. The return rate for the questionnaires ranged from 65% to 85% for the courses reviewed.

In analyzing the supervisors' and the participants' responses, the training staff looked not only at opinions about degree of change, but also at differences of opinions between supervisor and participant. Where those differences seemed large, the trainers followed up with

supervisors, asking why supervisors thought such differences existed. The instructors asked the supervisors to talk with their employees, if needed, to clarify the supervisors' own expectations of the course and its objectives, and how the employees felt changed by the course. The supervisors were contacted later if necessary for answers to those questions. The process did not appear to be threatening to employees; if it was, the instructors coached the supervisor on how to approach and talk with the employee to minimize anxious feelings.

Collection of other data - In all the courses, the instructors asked the participants why they thought they were in the course. The purpose was to determine participant expectations at the beginning of the session, as well as to determine if supervisors had discussed the purpose of the course with their employees before sending them. The training office looked at the results across the whole Bureau as well as by key sub-groups such as the units within the Bureau.

Another type of data collected which contributed to the assessment of the training function overall as well as the individual course, was instructor documentation of the course process. Instructors learn in their own formal training program to record their observations during the course. For example, they might record information such as the following:

- Issues raised by participants during the training (related, for instance, to the environment in which the trainees would be applying what they learned).

- Oral and written communications skills.
- Attitude of participants toward work, supervision, etc.

Instructors produced written analyses of each course session, including graphs of reaction data results, results of measures of learning, and observations of the course process and participant concerns, as well as any recommendations for changes in the course.

Finally, for subject matter experts (SMEs) who had been selected under the Bureau's merit promotion system to be part-time trainers, the permanent training staff observed and evaluated the performance of the SMEs throughout their initial instructional debut.

Overall evaluation of training efforts - At the end of the year during which BGFO launched their new training courses, the supervisor of the programmatic training section reviewed all the evaluation results, compiling figures for data collected on each course as well as developing trend data across courses. The supervisor provided a written report and gave briefings on the results to Bureau management, including organizational trends and recommendations for changes in the training and in the work environment. With the results showing the positive nature of the training courses, the Bureau agreed to increase its support for the training office's efforts. In the future, data will be collected on factors preventing behavioral change. Also, the overall evaluation effort described above will continue for new and old courses.

ANALYSIS OF EVALUATION METHOD

Resources required - The resources needed for the year-long review of new courses at the Bureau of Government Financial Operations consisted primarily of the time of the supervisor of programmatic training and the course instructors. The supervisor performed such tasks as planning what to evaluate for each course, developing instruments, reviewing course results, and developing summary and trend data. Each instructor spent about six hours per course session tabulating data collected and writing up the results. Follow-up questionnaires took little time on the part of the participants and supervisors. The follow-up conversations by instructors with supervisors whose opinions of course results differed from their employees added about four hours to a course evaluation. If course observations were made, instructors spent an additional two to four hours of effort.

Advantages

- Produces standard information across courses, allowing overall assessment to be made and trends to be developed, while still allowing some of evaluation questions to be tailored to individual courses.
- Assesses new effort as it is being implemented, enabling changes to be made as needed for future sessions of a course.
- Produces data which is acceptable to Bureau management for purposes of demonstrating program effectiveness and justifying training budget.

- Data can be developed which points to on-training environmental barriers to desired performance.

Limitations

- Return rate for questionnaires may not be acceptable/useful.
- Follow-up with supervisors may be threatening to employees.

Reference

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ATTACHMENT 1

END-OF-COURSE ACTION PLAN

ACTION PLAN

Course Title: _____
Dates: _____
Name: _____
Division and Branch: _____
Building and Room Number: _____
Phone Number: _____

Action Items I plan to do:	Start to implement (check if known) within 3 months	after 3 months	as arises	

ATTACHMENT 2

FOLLOW-UP QUESTIONNAIRES - PARTICIPANTS AND SUPERVISORS

(SAMPLE PARTICIPANT FOLLOW-UP LETTER)
(THOSE USING ACTION PLAN)

UNITED STATES GOVERNMENT

memorandum

DATE:

REPLY TO ATTN OF: Instructor's Name

SUBJECT: Course Title Follow-Up Questionnaire

TO: Participant's Name

In order to maintain current course data we often ask participants to complete a variety of survey instruments. I have attached a copy of the action plan you completed during class, a list of course objectives and a follow-up questionnaire. The questionnaire is designed to:

1) Learn of your progress in completing the action items;
2) Evaluate skills that have been transferred back to the job.

Please complete the questionnaire with your name on it and return to me, This information is needed no later than _____.

I appreciate your cooperation in supplying this information.

Instructor's Name
Management Resources and
Employee Development Branch

Attachments

OPTIONAL FORM NO. 10
(REV. 7-76)
GSA FPMR (41 CFR) 101-11.6
5010-112

PARTICIPANT
FOLLOW-UP EVALUATION FOR
TELEPHONE TECHNIQUES

Division & Branch _____ Date _____

Employee's Name _____

Supervisor's Name _____

Date Attended _____

Directions:

Please circle the appropriate number.

1. Overall, have you been able to improve your telephone techniques in areas related to the training course?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

2. The training course had five main objectives. Please rate yourself in each of these areas.

   a) using a variety of vocal effects to create effective and efficient working relationships with callers?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

   b) answering promptly, identifying self and section?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

   c) taking complete, accurate messages efficiently and delivering them to office staff members within the time standard set by the office?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

   d) observing the basic conventions of telephone etiquette by:

      - holding & transferring calls properly and only with permission?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

- interrupting only when absolutely necessary?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

- saying "thank you" and "good-bye" and avoiding slang?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

e) treating each caller as a friend who needs help - with compassion, good cheer, and obvious effort to help?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

4. Overall, do you feel the training has met your goals?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

5. Please list the action items you completed in class on the lines below and circle your response to each.

A. _____

_____

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

B. _____

_____

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

6. If there is no improvement on the action items, what do you think is the principal cause?

Supervisory
Follow-Up Evaluation for
Telephone Techniques

Division & Branch _____ Date _____

Employee's Name _____

Supervisor's Name _____

Date Attended _____

Directions:

Please circle the appropriate number. For questions number two and five write brief responses.

1. Overall, has this employee's performance in the areas related to the training improved?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

2. If performance has not improved, what do you think is the principal cause?

3. The training course had five main objectives. Please rate your employee in each of these areas. Has your employee's performance improved in:

   a) using a variety of vocal effects to create effective and efficient working relationships with callers?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

   b) answering promptly, identifying self and section?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

   c) taking complete, accurate messages efficiently and delivering them to office staff members within the time standard set by their office?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

d) observing the basic conventions of telephone etiquette by:

- holding and transferring calls properly and only with permission?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

- interrupting only when absolutely necessary?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

- saying "thank you" and "good-bye" and avoiding slang?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

e) treating each caller as a friend who needs help - with compassion, good cheer, and obvious effort to help?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

4. Overall, do you as the employee's supervisor feel the training has met your goals?

Minimal Extent	Little Extent	Some Extent	Moderate Extent	Considerable Extent
1	2	3	4	5

5. If you have suggestions to improve the course, please feel free to make them.

APPENDICES

Appendix A - Summaries from "Evaluating the Impact of Training" (first volume, Spring 1983)

Appendix B - Selected Bibliography

Appendix C - U.S. Office of Personnel Management Contacts

Appendix D - OPM Publications Available at NTIS

APPENDIX A

SUMMARIES FROM "EVALUATING THE IMPACT OF TRAINING" (FIRST VOLUME, SPRING 1983)

SUMMARIES OF AGENCY EVALUATION EFFORTS

1. Department of Education: Evaluation of the Basic Supervisory Training Program

New supervisors in the Department of Education take a 40-hour in-house supervisory course, which emphasizes communications and problem solving skills. Line supervisors in the agency volunteered to teach the course and were trained as instructors. The Department's evaluation of the course began on the last day of class, with each participant's identifying at least one course skill to be applied on the job. The volunteer trainers then contacted the participants several weeks later. Using a structured interview format to gather data, the trainers, now in the role of evaluators, asked participants for examples of their use of course skills on the job, as well as reasons for not using them. The evaluators not only took on this diagnostic role, but also developed a consultative relationship with the participants, in order to assist participants in planning future actions to apply what they learned in training to the job.

After two months, the evaluators returned to obtain additional examples of changes. At that time, data was developed on return-on-investment (ROI), that is, how much performance improved as a result of the training compared to the training and operational resources consumed, in terms of dollars saved. Savings could occur, for instance, through improved office procedures requiring less staff and/or supervisory time. The training office used the results to justify the basic format and content of the course, in terms of return-on-investment, as well as to identify needed refinements in the course.

Reference

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2. U.S. General Accounting Office: Evaluation of the Skills for Performance and Career Development Course

In the late 1970's, GAO developed a course to train its auditing staff in interpersonal problem-solving processes and to enable individuals to use the skills learned in various GAO settings. Almost all GAO auditors/evaluators and many support staff (over 3000 individuals) attended the Skills for Performance and Career Development course, which covers skills such as performance and career counseling and performance appraisal. While the course was being implemented, the training office carried out an extensive evaluation to assess participant reactions to the course and knowledge gained (course process measures) and participant application on the job of skills learned (course product measures).

Two methods were used to measure how well participants applied what they learned in the course to the job. The first was a follow-up questionnaire, which asked participants to report on their use of skills in different GAO settings. The questionnaire also asked participants to indicate how they would deal with various interpersonal situations. The second follow-up method was the observation of audit teams. Trained observers sat in on team meetings and noted examples of the auditors' use of specific interpersonal skills.

The evaluation design also included the use of various control groups, including those who had not yet taken the course, and those who were "sensitized" to the subject matter without actually participating in a course. The training office used the results of the evaluation for a variety of purposes, including modifying offerings of the course for other GAO staff, determining use of skills in the agency, and showing the value of internal evaluation.

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3. Internal Revenue Service: Level II Evaluation

At IRS, assessment of the impact of training on job performance is called "Level II" feedback or external evaluation. It involves collecting course criterion test scores on participants to measure how well each person performs relative to each course objective. Then the evaluators send follow-up questionnaires to trainees, supervisors, and/or on-the-job coaches several months after training. The questionnaires ask for background information on the participants (e.g., education level, work experience), as well as perceptions on three factors: the frequency with which tasks are performed, the adequacy of training in preparing participants to perform the tasks, and how well the tasks are carried out.

The subsequent data is processed and displayed by means of a computer program. The evaluators can study various relationships of the data - for instance, the relation of course test results to mastery of tasks on the job, and correlations between factors such as work experience or geographical location and performance on tasks learned in the course. The training office uses the results of Level II evaluations to document and improve the impact of training on job performance, including course revision if needed. Different instructional methods can be compared as well.

Reference

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4. Department of Labor/Employment Standards Administration, Example #1: Evaluation of Desk Audit Training

The Employment Standards Administration uses a general model to evaluate the training of agents such as investigators and claims examiners, with modifications as needed for each specific situation. This approach usually includes a needs analysis of trainees' skills, a task analysis of what functions the job entails, the development of course objectives based on the skill levels and job task requirements, an in-course evaluation, and a supervisory on-job performance evaluation four to six months after the completion of the course.

For one particular course, Desk Audit Training, the in-course evaluation included the following: Participants filled out a questionnaire at the beginning and the end of the course, which asked them how confident they felt to perform specific tasks required in their jobs. The participants also worked on a fictional case study at the end of the course as a means of measuring their performance achievement. The assessment data were used to compare end-of-course achievement among groups of trainees with different levels of experience prior to training. To follow up after the course, the evaluators sent a questionnaire to supervisors asking them to judge the performance levels of their trained employees, in the task areas taught in the course. The evaluators then made comparisons between group needs before the course and average supervisory ratings of post-course performance. The training office used the final evaluation results to verify the adequacy of the course design and content and the appropriateness of the type of participants who were attending the course.

Reference

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5. Department of Labor/Employment Standards Administration, Example #2: Evaluation of Federal Employees' Compensation District Office Managers Workshop

District office managers employed in Federal employee compensation offices around the country attended a course on how to use a new management information system (MIS). The purpose of the course was to enable the managers to analyze operational problems with MIS data and to track the effectiveness of improvement efforts. During the course, the managers, working in teams from their offices, chose their own problems to tackle when they returned to their jobs. They developed a plan of action which included setting productivity improvement goals such as reducing case loads and decreasing case processing time. Class members critiqued each other's plans and the training office kept copies of the plans for follow-up purposes.

The intent of the evaluation was to ensure that the managers learned how to use the MIS for their own purposes and applied what they had learned. The evaluation involved the training office's tracking monthly reports generated by the MIS, as a way to review productivity figures. The office also interviewed managers at quarterly intervals, to determine the extent of action plan implementation and the nature of any problems encountered. The follow-up covered a nine-month period. The training office compared productivity goals with actual achievements as the means of judging course effectiveness. The evaluation also showed the success of using action-planning and goal-setting as an integral part of the training program - as a means to link skills training with program results.

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6. Department of the Navy/Naval Research Laboratory: Evaluation of Portuguese Language Course (for Technical and Scientific Staff)

Scientists and technicians at the Naval Research Laboratory took a basic Portuguese language course before embarking on an assignment with their Brazilian Navy counterparts. The need for the course stemmed from past communications problems encountered among personnel from the two countries. The difficulties which each group had in understanding the other had produced unsafe and ineffective working conditions.

After the U.S. Navy staff returned to headquarters, the training office brought the group together to discuss the value of the course to their work. The semi-structured group interview process yielded specific examples of individual and group changes on the job after the training as well as suggestions for further training.

Reference

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7. U.S. Office of Personnel Management: The Participant Action Plan Approach, A Generic Follow-up Evaluation Method

The Participant Action Plan Approach (PAPA), a generic evaluation method developed by the U.S. Office of Personnel Management, enables evaluators to determine the extent of behavioral change which has occurred as a result of participants' attending a training course. At the end of training, participants fill out an action plan - a list of changes they want to implement when they return to their jobs. The evaluator follows up with the participants several months later, through interviews or questionnaires, to obtain specific examples of change, as well as other data such as factors interfering with attempted change and the impact on the organization of new efforts made by participants.

Variations on the basic PAPA process include following up with participants without having them fill out action plans during the course (still collecting examples of behavioral change), and involving the supervisors of the participants in the action planning process, either before or after the course or both.

In one application of PAPA, the Department of Energy used action planning in a management development seminar taught by contractors. The interview results led to suggestions for course change, which were provided to the instructors, as well as confirming that the course was generally on target.

The Test and Evaluation Command (TECOM), part of DARCOM, Department of the Army, requires an action planning process based on PAPA as part of a regulation on evaluating civilian training effectiveness. Before a participant can attend training, the supervisor must describe the purposes of that person's attending. After the course, the participant fills out an action plan and provides a copy to the supervisor and the civilian personnel office. Then three to four months after completion of training, supervisor and participant respond to questions sent by the personnel office on implementation of the action plan and effectiveness of the course.

References

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APPENDIX B

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY: TRAINING EVALUATION

Alden, J. Evaluation in focus. Training and Development Journal, 1978, 32(10), 46-50.

(Lists key questions to ask when designing training evaluation, in order to make sure that the effort is worth doing in the first place and that it produces needed information)

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(Articles on current status of training evaluation, practical strategies for evaluation, evaluating management training; some articles are cited individually throughout bibliography, below)

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(Discussion between two preeminent professionals about the training office's role in performance change and how to increase organizational influence)

Brethower, K.S. & Rummler, G.A. Evaluating training. Training and Development Journal, 1979, 33(5), 14-22.

(Presentation of a framework for viewing evaluation alternatives and deciding what evaluation is appropriate, by using a general systems model; evaluation levels considered deal with participant satisfaction with course, training's accomplishments of goals, participant use of concepts, and negative or positive impact on organization; also includes guidelines on conducting evaluation studies with a matrix of questions to ask for each evaluation level, and suggested evaluation designs)

Brinkerhoff, R.O. Making evaluation more useful. Training and Development Journal, 1981, 35(12), 66-70.

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(Ten steps to determining which training programs are worth evaluating)

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(Discussion of the skills needed by an evaluator of training programs, as well as a discussion of evaluation techniques to be used at different points in the training process and for different purposes of evaluation)

Elkins, A. Some views on management training. Personnel Journal, June 1977, 305-306, 311.

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Fast, D. A new approach to quantifying training program effectiveness. Training and Development Journal, 1974, 30(9), 8-14.

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Georgenson, D.L. The problem of transfer calls for partnership. Training and Development Journal, 1982, 36(10), 75-78.

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Gilbert, T.F. Measuring the potential for performance improvement. Training/HRD, 1978, 15(12), 25-28.

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Gilbert, T.F. A question of performance. Part I: The PROBE model. Training and Development Journal, 1982, 36(9), 21-30. Part II: Applying the PROBE model. Training and Development Journal, 1982, 36(10), 85-89.

("Profiling behavior" - PROBE - consists of a set of questions to ask about work environments in order to determine barriers to exemplary performance; the articles describe this performance analysis approach and provide an example of its use)

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(This book describes a systematic approach to designing, developing, implementing, and evaluating training programs, as well as discussing learning theory and instructional approaches)

Goldstein, I.L. The pursuit of validity in the evaluation of training programs. Human Factors, 1979, 20(2), 131-144.

(Discussion of questions such as, "Did training make a difference in this situation?" and "Do results in this situation apply to other trainees or other organizations?")

Hamblin, A.C. Evaluation and control of training. London: McGraw-Hill Book Company (UK) Limited, 1974.

(Discussion of alternative evaluation methods, including descriptions of strategies, objectives, and techniques; examples cover the range from cost-benefit approaches to reaction measures)

Heydinger, Jr., R.B. Planning an innovation: An inventory of decision variables. Improving Human Performance Quarterly, 1979, 8(2), 123-133.

(A checklist of characteristics useful for planning a program evaluation study, such as time frame, reference points, methodology, and feedback)

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(A down-to-earth explanation of four models - two related to training costs; one to short-term benefits of training; and one to training and productivity)

Kirkpatrick, D.L. Evaluation of training. In R.L. Craig (Ed.), Training and development handbook (2nd ed.). New York: McGraw-Hill, 1976.

(Four types of training evaluation data - reaction, learning, behavior, and results - are discussed)

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(A training manual which includes examples of methods for doing organizational, job, and manpower analyses, and identifying training needs)

Meier, T.K. & Pulichene, J.P. Evaluating the effectiveness of assertiveness training. Training and Development Journal, 1980, 34(2), 66-68.

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(How to ensure that what participants learn is transferred to the job)

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(Measurements methods and their application to effects of training on personal characteristics, individual and organizational performance, and return-on-investment)

Peterson, R.O. (Ed.) ASTD Research Series No. 3: Determining the payoff of management training. Madison, WI: American Society for Training and Development, 1979.

(Papers from the first annual invitational research seminar, covering topics such as general guidelines for evaluating the outcomes of management training and an approach to determining the value of such training)

Phillips, J.J. Handbook of training evaluation and measurement methods. Houston, TX: Gulf Publishing Company, 1983.

(Covers a wide range of training evaluation areas, including designing an evaluation effort, selecting instruments and sample participants, collecting and analyzing data, determining program costs, measuring return-on-investment)

Putnam, A.O. Pragmatic evaluation. Training and Development Journal, 1980, 34(10), 36-40.

(General discussion of problems with evaluations which are "truth-seeking;" lists eight questions to guide evaluator through "pragmatic" assessment efforts)

Rummler, G.A. You need performance, not just training. Training, 1977, 14(10), 50-53.

(Summary of the causes of poor performance and the role of training in managing performance improvement)

Salinger, R.D. & Deming, B. Practical strategies for evaluating training. Training and Development Journal, 1982, 36(8), 20-29.

(Description of evaluation strategies which answer such questions as the appropriateness of the training and the transferability of the training to the job)

Smith, M.E. An illustration of evaluating post-training job performance. Improving Human Performance Quarterly, 1979, 8(3), 181-201. (a)

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Smith, M.E. Exchanging ideas on evaluation: 15. New England Telephone's training management operational review plan. NSPI Journal, 1979, 18(6), 44-47. (b)

(Description of New England Telephone's quality control process for its training function, including a matrix of 34 variables measured (e.g., timeliness of training, efficiency of development) and the 20 general types of exercises used to measure variables)

Smith, M.E. Evaluating training operations and programs. Training and Development Journal, 1980, 34(10), 70-78.

(Reviews Brethower/Rummler evaluation model and combines with AT&T generic list of major training organization activities; discusses problems in doing evaluation and conditions supportive to evaluation)

Smith, M.E. Field research designs. NSPI Journal, 1982, 21(2), 27-29.

(Reviews "quasi-experimental" designs which can be used to conduct evaluation studies; gives references to efforts in which designs were used)

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(Discusses different types of evaluation appropriate at different stages of developing and implementing an HRD program, and discusses objectives and guiding principles for each type of evaluation, e.g., summative evaluation for assessing program effectiveness and efficiency)

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(Brief descriptions of twelve techniques which will help transfer learned classroom skills to the job; examples are personal action planning, group action planning, the buddy system, and follow-up sessions)

Thiagarajan, S. The President's Pages: Transitional evaluation - Correcting and confirming planned change. NSPI Journal, 1979, 18(3), 1-3.

(A general approach for comparing the costs and benefits of old and new systems, e.g., different methods of training, with alternatives, depending on what kind of data is available)

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(A performance-based process which can be used to evaluate the adequacy of the organization's training program and to anticipate training needs; an example of a question is: What type of new employees, i.e., with what skills, are being recruited and will be recruited in the future and for what positions?)

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Warren, M.W. Delivering training in a decentralized organization. Training/HRD, 1978, 15(12), 39-41.

(Consequences of training to participants, and their supervisors and managers; how supervisors can ensure that performance changes occur as a result of training)

Warren, M.W. Training for results: A systems approach to the development of human resources in industry (2nd ed.). Reading, MA: Addison-Wesley, 1979.

(A book about the systems approach to training which looks at training as a technology (an applied science of human performance) and designed with a specific mission in mind; some concepts discussed are: training as a system, estimating costs, evaluating training actions, and developing management training)

Wise, R.E. & Zern, H.R. Identifying and improving management skills at Hartford National Bank. Training/HRD, 1982, 19(11), 56-58.

(Description of the procedures used at a bank to train senior managers in basic interpersonal skills through a behavior modeling program; the process included a needs assessment and an evaluation using a pre-/post-test and control group design)

Zemke, R. Management training and development: Measuring the impact. Training, 1977, 14(10), 62-64. (a)

(Brief comments by HRD managers and others on issues to consider in evaluating management training)

Zemke, R. Task analysis: Figuring out what people need to learn. Training, 1977, 14(12), 16-20. (b)

(Briefly reviews task analyses techniques; familiarizes reader with terminology and processes of, for example, critical-incident technique, flow-charting, focus groups)

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(Extensive coverage of various techniques and procedures for studying organizations, performing task analyses, and determining training needs)

Zemke, R., Standke, L., & Jones, P. (Eds.) Designing and delivering cost-effective training - and measuring the results. Minneapolis, MN: Lakewood Publications, 1981.

(Collection of articles on wide range of training topics, from the last 16 years of Training magazine)

Zenger, J.H. & Hargis, K. Assessing training results: It's time to take the plunge! Training and Development Journal, 1982, 36(1), 11-16.

(Discussion of why training should be evaluated and some guidelines and general methods for doing it; includes examples of designs to measure on-job behavior change of supervisors)

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SELECTED BIBLIOGRAPHY: TRAINING EVALUATION

Supplement - January 1984

Brinkerhoff, R.O. The success case: A low-cost high-yield evaluation. Training and Development Journal, August 1983, 58-61.

(Description of a method for follow-up evaluation in which a small number of trainees are interviewed, having been selected because they appear to have particularly benefited from the training; results can show value of training for those individuals and can serve as input to broader-based survey)

Connolly, S. Participant evaluation: Finding out how well training worked. Training and Development Journal, October 1983, 92-96.

(Reviews key questions to ask when doing a follow-up evaluation and describes design for surveying participants/managers/subordinates, particularly using interviews)

Galagan, P. The numbers game: Putting value on human resource development. Training and Development Journal, August 1983, 48-51.

(Discusses concerns regarding assessment, including comments from experienced evaluators; has examples of key evaluation questions)

Galvin, J.C. What can trainers learn from educators about evaluating management training. Training and Development Journal, August 1983, 52-57.

(Review of the CIPP model used in education evaluation - context, input, process, and product evaluation; compared to Kirkpatrick's four levels of evaluation data - reaction, learning, behavior, and results - with CIPP shown as more comprehensive model)

Training today. Low-threat truth-telling aids supervisor assessment. Training, August 1983, 69-70.

(Describes process to determine changes resulting from management skills training courses; method uses a questionnaire administered to subordinates in a group setting, asking for observations on their supervisors' behavior; method ensures anonymity and encourages candor)

Zemke, R. Job instruction training: Don't overlook it. Training, July 1983, 65-66.

(Reviews a form of structured on-the-job training developed during World War II and relates the approach to various learning and training transfer theories currently in use)

APPENDIX C

U.S. OFFICE OF PERSONNEL MANAGEMENT CONTACTS

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APPENDIX D

OPM PUBLICATIONS AVAILABLE AT NTIS

OPM Publications Available at NTIS

The following publications can be ordered from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA, 22161. The Accession Number should be included with the order.

Training Evaluation Demonstration Project

During 1978-1979, the U.S. Office of Personnel Management undertook a training evaluation demonstration project in order to show how evaluation techniques could be applied to different types of training courses and in different organizational settings. Six Federal agency training efforts were the subjects of the demonstration study. Each case study includes descriptions of the evaluation design, results, and conclusions, along with copies of instruments used. Each study is available as a separate report from NTIS.

Training Evaluation Demonstration Project, Case Study 1: Evaluation of the Executive Development Program of the Science and Education Administration, United States Department of Agriculture. Accession No. PB84-105006. Paper copy - $14.50; microfiche - $4.50. The evaluation objectives were to determine: (1) the extent to which potential executives have developed professionally during the executive development program; (2) the role of the mentor-understudy relationship in the development of the potential executives; (3) the ways in which the program could be improved.

Training Evaluation Demonstration Project, Case Study 2: An Evaluation of a Scientific/Technical Course on Radiological Health and Safety Presented by the National Institutes of Health. Accession No. PB84-105014. Paper copy - $13.00; microfiche - $4.50. The evaluation objectives were to determine: (1) the adequacy and congruence of the course process (sequence, instructional strategies, etc.); (2) participants' perceived value of the course; (3) participants' degree of learning; (4) perceived change in behavior as a result of the course; (5) the costs of the course.

Training Evaluation Demonstration Project, Case Study 3: An Evaluation of a Technical Course on Electronic Photocomposition Keyboard Techniques Presented at the Government Printing Office. Accession No. PB84-105022. Paper copy - $14.50; microfiche - $4.50. The evaluation objectives were to: (1) measure whether or not the training accomplished its objectives; (2) measure the economic impact of the training; (3) recommend improvement for the training process.

Training Evaluation Demonstration Project, Case Study 4: An Evaluation of an Interagency Course on Training Evaluation Presented by the Office of Personnel Management. Accession No. PB84-105030. Paper copy - $11.50; microfiche - $4.50. The evaluation objectives were to determine: (1) if participants were able to meet course objectives, and if not, why not; (2) participants' reaction to content appropriateness, presentation effectiveness, etc.; (3) if skills and/or knowledges acquired during training were used back on the job, and if not, why not.

Training Evaluation Demonstration Project (continued)

Training Evaluation Demonstration Project, Case Study 5: An Evaluation of a Clerical Course on Travel Regulations Presented by the National Aeronautics and Space Administration. Accession No. PB84-118371. Paper copy - $16.00; microfiche - $4.50. The evaluation objectives were to determine: (1) trainee classroom performance on the course objectives; (2) the congruence of the course process with the course objectives; (3) the value of training to the organization; (4) factors related to performance which were not affected by the course.

Training Evaluation Demonstration Project, Case Study 6: An Evaluation of an Organizational Development and Training Effort in Management Communications Conducted at Fort Belvoir. Accession No. PB84-105048. Paper copy - $10.00; microfiche - $4.50. The evaluation objectives were to: (1) assess on-the-job changes in participant behavior which resulted from the training; (2) assess the effect of the training on the two bureaus involved; (3) identify problems encountered when participants attempted behavior changes.

Assessing Changes in Job Behavior Due to Training: A Guide to the Participant Action Plan Approach. Accession No. PB84-105238. Paper copy - $13.00; microfiche - $4.50. The Participant Action Plan Approach (PAPA), a generic evaluation method developed by the U.S. Office of Personnel Management, enables evaluators to determine the extent of behavioral change which has occurred as a result of participants' attending a training course. At the end of training, participants fill out an action plan - a list of changes they want to implement when they return to their jobs. The evaluator follows up with the participants several months later, through interviews or questionnaires, to obtain specific examples of change, as well as other data such as factors interfering with attempted change and the impact on the organization of new efforts made by participants. The PAPA Guide contains complete step-by-step instructions for conducting an evaluation using PAPA, including forms, alternative ways to analyze results, and a sample report format. (Also available, while the supply lasts, at no charge from Training Resources Management Division, Office of Personnel Management, P.O. Box 7230, Washington, DC 20044).

Evaluating the Impact of Training: A Collection of Federal Agency Evaluation Practices. Accession No. PB83-261149. Paper copy - $17.50; microfiche - $4.50. The U.S. Office of Personnel Management surveyed Government agencies, seeking successful efforts to evaluate the impact of training on individual and organizational performance. In the first of a two-part issuance, seven examples of agency evaluation practices have been compiled, including a description of the steps in each evaluation effort, examples of instruments used, and an analysis of the methods. References are given to agency personnel responsible for the evaluations. A briefly annotated bibliography is included. The evaluations use such methods as group discussions with trainees several months after training; training line supervisors to be evaluators and consultants; calculation of return-on-investment for a training program; post-course surveying of trainees' supervisors; following up on action plans; and observations of trainee performance.